

BY G. F. T.

Fine Feathers and Horse Play

No doubt we're mixing metaphors unpardonably by mentioning feathers and horses in the same breath, but the fact is that we've observed both this year as part of one breath—the Breath of Spring.

For three years now we've been interviewing business executives who were wearing dim, dull, drab, and dingy suits. But, lo! See what tailors hath wrought in 1934.

Bright browns and greys, with loud checks and sporty cuts, are now embellishing our best offices. Colored shirts, light hats, yellow walking sticks, brilliant cravats (we'd rather call 'em "neckties," but since we've gone into the Fashion Hint business, we might as well practice up on the lingo), and dashing topcoats are now gladdening the eye of many a jaded stenographer.

Prosperity, as well as spring, must have rounded the corner.

Item No. 2: An unprecedented amount of horseplay, ribbing, practical jokes, and salacious humor is now impregnating almost every office we visit with the spirit of raillery and good fun.

We haven't seen anything like it in the last five years.

Our Statistician Is Surprised & Impressed

Statistician JACK CUTTING took a week-end jaunt to Chicago recently, and had himself a surprise while there. So when he got back he sent us this note:

"GFT: Ran across a rather interesting place in the wild outskirt of Chicago. A bar operated by one Jim Seidel, brakeman on a railroad, going under the name of Seidel's Beer Steube.

"The place was a rather dilapidated looking cottage, one story high, and about the size of a good three-hole.

"But the equipment . . . a 7-cu. ft. G-E, a completely refrigerated bar with facilities for making ice cubes, and an Ig air washer. And all in a place about the size of a dog house, and in a quite questionable neighborhood."

G-E Distributor DICK COOPER wouldn't have been surprised at that. His men sell to all sorts of unpromising prospects. But even though he might not be surprised, we'll bet Dick will be pleased at the story. It spells ENTERPRISE.

Too Much Crosley?

Our old friend SAM Vining, who used to be sales manager for Servel, then went with Majestic, and now heads up department store sales for Westinghouse, dropped in on us the other day. During the course of the conversation he demanded to know why Crosley had been getting so much publicity in the NEWS recently.

"Because," we told him, "Crosley is making news this year. It is the only company in the business, so far as we know, which has doubled production over last year. It has jumped to a standing among the first four or five manufacturers. And recently Crosley did something of considerable significance—dedicated the world's first 500,000-watt radio broadcasting station."

We've had to stay home and hold the fort here at the office during the last few weeks, and hence couldn't get away for the dedication (although we did listen to the dedicatory radio program staying with it until the end, at 3 o'clock in the morning). But we have been down to Mason, Ohio, to see the half-million-watter. And please believe us, it is impressive. Here are a few facts about it:

It is the most powerful radio broadcasting station ever built anywhere in the world. 50,000 watts is to date the most powerful ever constructed in the United States, and WLW was the first to use this limit of power.

The new transmitter will increase the old 50,000-watt WLW signal, at any point, some 325 per cent. It will spread the station's coverage areas by 1,000 per cent.

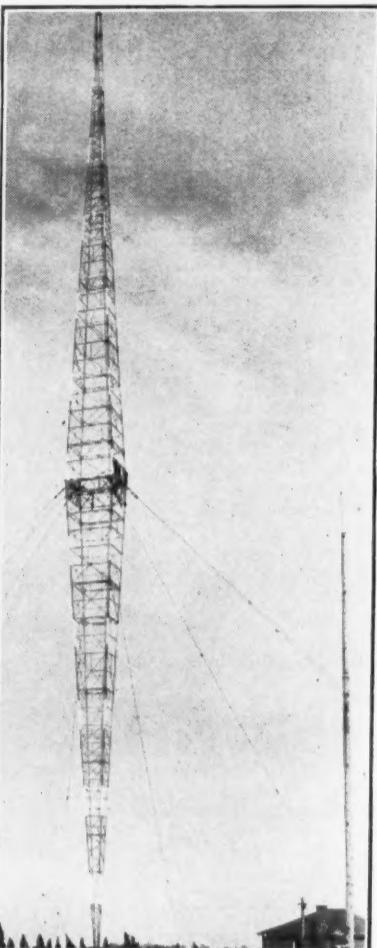
An 831-ft. vertical radiator antenna tower is a part of the equipment. This tower rises 250 ft. higher than the Washington Monument.

One million gallons of water daily and 22,500 cu. ft. of air per minute are required to cool the huge tubes and delicate equipment.

Twenty tubes are used in the new transmitter, each tube costing approximately \$1,600. A complete set costs \$34,000. They are built to give nine weeks of service, but so far none of them have lasted that long. Monthly power bill of the station is about \$8,000.

Two transformers used in the transmitting station are said to be the largest of their kind in the world.

Monstrosity?



fun. I'd like to take this opportunity to tell you that our 1934 deluxe line"

He got no further. HERMAN MEYERS, ace of the sales staff of Schwegler Bros. of Buffalo, bounced out of his seat, and raced up to the speakers' stand before the Kelvinator sales chief could finish his sentence.

"Pete" knew what Meyers wanted. He calmly dug out his billfold, extracted a crisp single, and then, having paid his way, completed his exposition of this year's line.

F-12 Etiquette

And that reminds us. Many weeks ago we published in this kolumn a discussion with AUGUSTUS H. EUSTIS, president of Virginia Smelting Co. (large suppliers of sulphur dioxide to the trade), on the question: When a customer buys an electric refrigerator which is charged with F-12, does he buy the right to use F-12 in that machine?

Since that time Mr. Eustis has written us further on the same subject, as follows:

"This question came to light again in the discussion of a paper presented at a meeting of the Compressed Gas Manufacturers Association at the Hotel Astor in New York. The circumstances were as follows:

"I had read a paper on the 'Merits and Properties of Various Refrigerants,' and H. D. Edwards had spoken in further discussion of the same subject.

"Mr. Rhodes, representing the Kinetic Chemicals Co., was present; and in his discussion he made it very plain that when a customer buys an electric refrigerating machine, charged with F-12, the customer does not buy the right to use F-12 in that machine; and that should the charge leak out of the machine, the customer would be obliged to re-buy the right or else charge the machine with some

Our Secret Ambition



Billy, Joanne, and Jimmy, the three children of P. W. Endriss of the Westinghouse merchandising advertising department in Mansfield, look like the nucleus for an ideal family.

other refrigerant.

"Mr. Rhodes pointed out that this latter was perfectly practical by simply changing the pulley on the machine.

"Another point of interest in this connection also came to light in connection with the present cost of F-12 as compared with other refrigerants.

"Mr. Rhodes preferred that I did not mention any price, and he, accordingly, explained the situation in his comments. His explanation made it quite plain that the price varied over rather wide limits depending on the circumstances of the sale.

"It was also quite apparent that the small buyer who would be requiring F-12 for refilling the machine would come in the class carrying the highest price.

"It seems to me that the buyers of electric refrigeration equipment will be interested in realizing exactly how this situation stands and I am, accordingly, calling your attention to this discussion."

We might add, rather pointlessly, that there is nothing new about the latter situation. Small buyers generally pay highest prices, discounts going to quantity purchasers on a sliding scale.

Calm China Buys More Refrigerators

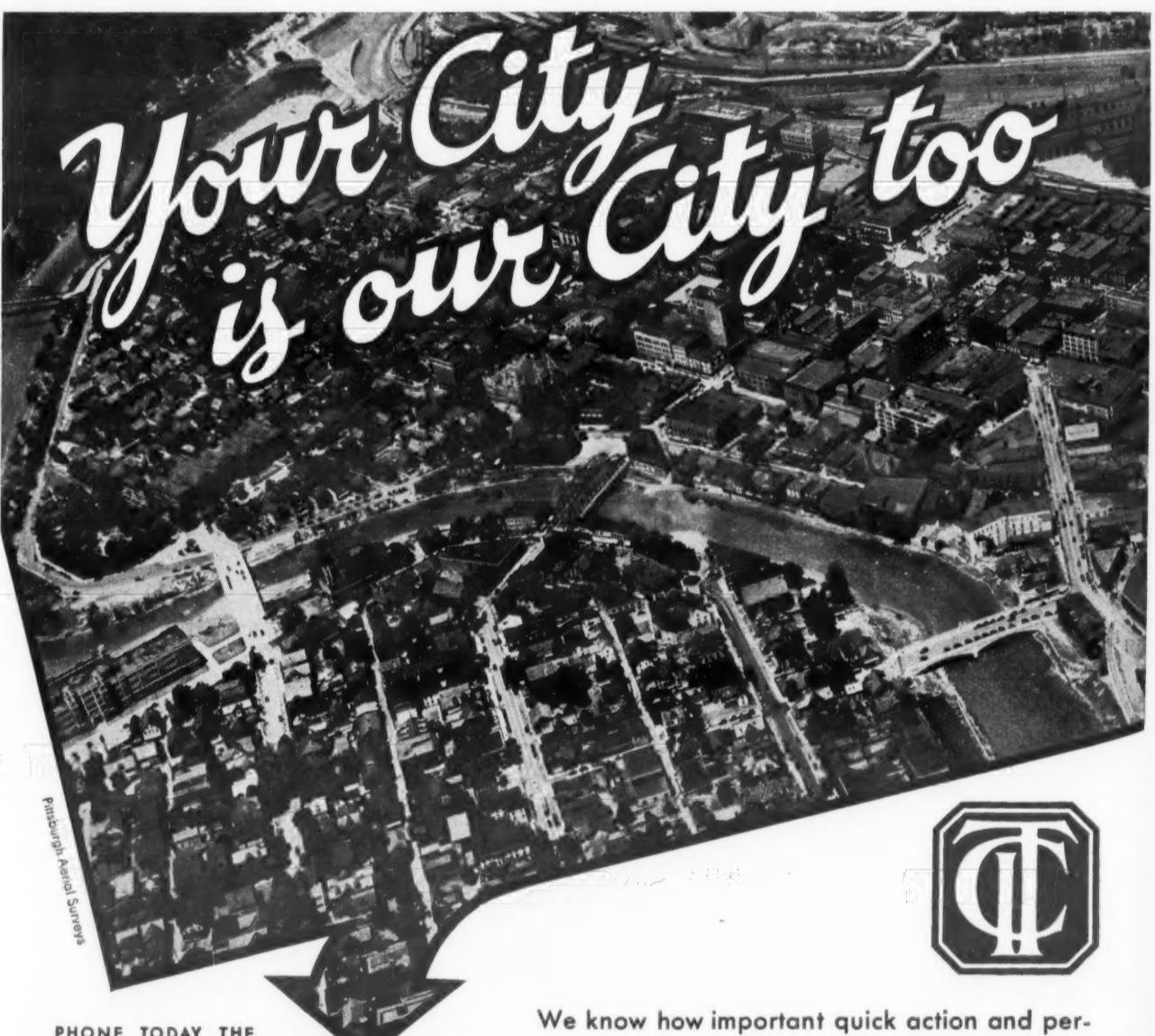
News reports of conflict in China (as regular as DOROTHY DIX or the Vital Statistics) don't mean that the refrigeration business is all shot to hellangone, according to G. G. BRADFORD, Frigidaire representative in China, who returned to this country a few months ago.

Mr. Bradford dropped into our office one evening about 6 o'clock to renew his subscription (note: he left five dollars, cash). He says that business goes on pretty much the same, war or no war. 1933 was a good year for Frigidaire in China—better than 1932.

Recent blasts at the so-called "Soong dynasty" and trouble brewing in Fukien mean little to business, he says. Gen. Kiang Kai-Shek, the head man over there, has himself compared their petty warfare to Chicago gangland troubles.

Refrigerators are sold in China somewhat as they are sold in America, according to Mr. Bradford. Salesmen follow up leads to homes, showroom demonstrations are conducted, the same stories of economy and convenience told.

Prices over there run from 30 per cent higher than American prices to even greater figures—depending largely upon the duty levied at the port of entry. Rigid list prices are not maintained, however.



PHONE TODAY THE NEAREST C. I. T. OFFICE

Akron-Albany-Altoona-Amarillo-Asheville-Atlanta-Augusta-Baltimore-Bangor-Bay Shore-Beaumont-Bedley-Binghamton-Birmingham-Boise-Boston-Bridgeport-Bronx-Brooklyn-Buffalo-Butte-Camden-Cedar Rapids-Charleston-Charlotte-Chattanooga-Chicago-Cincinnati-Clarksville-Cleveland-Columbia-Columbus-Cumberland-Dallas-Dayton-Denver-Des Moines-Detroit-El Paso-Erie-Florence-Fort Wayne-Fort Worth-Fresno-Glens Falls-Greensburg-Greenville-Hagerstown-Harrisburg-Hartford-Hempstead-Houston-Huntington,N.Y.-Huntington,W.Va.-Indianapolis-Jacksonville-Jamaica-Jamestown-Jersey City-Johnson City-Kansas City-Knoxville-Lexington-Lincoln-Little Rock-Los Angeles-Louisville-Manchester-Memphis-Miami-Middletown-Milwaukee-Minneapolis-Montgomery-Montpelier-Mt. Vernon-Nashville-Newark-Newburgh-New Haven-New Orleans-New York-Norfolk-Oklahoma City-Omaha-Orlando-Paducah-Paterson-Pearl River-Portland, Me.-Portland,Ore.-Portsmouth-Poughkeepsie-Providence-Raleigh-Reading-Reno-Richmond-Roanoke-Rochester-Rome, Ga.-Sacramento-St. George-St. Louis-Salt Lake City-San Antonio-San Bernardino-San Diego-San Francisco-San Jose-Scranton-Seattle-Shreveport-Spokane-Springfield-Stockton-Syracuse-Tallahassee-Tampa-Toledo-Tucson-Tulsa-Utica-Washington-Watertown-Wheeling-White Plains-Wichita-Wilkes-Barre-Wilmington-Wilson-Yakima-Youngstown.

We know how important quick action and personal contact are in Finance Service . . . in checking customer credits, buying paper, and making collections. That's why there is a full-functioning C.I.T. Office in every territory.

Invite the C.I.T. representative to explain our current Refrigerator Financing Plans in terms of your particular need. Compare the low costs he quotes. Examine C.I.T.'s record for dependability.

C.I.T. Plans cover approved types of mechanical refrigerators and water coolers, as well as electric ranges and air conditioning equipment.

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REFRIGERATION NEWS

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DEALERS AIR THEIR VIEWS ON TVA PROGRAM

By Elston D. Herron

Things are mighty busy down in Knoxville, Tenn. Folks can't remember when the city was so abuzz as it has been since the TVA brought its headquarters there, and started in on a far-reaching program of social and industrial modernization in the Tennessee Valley.

Thirty-five miles northwest of Knoxville, construction is going ahead full blast on Norris Dam, big power project of the TVA. Until the dam was started, that spot was nothing but a lot of land and water. Now it is a city in the making. Houses and stores are going up, streets are being

laid out, hundreds of people are coming there to live and work.

Knoxville has become a source of supply for the skeleton town. Tons of food, truckloads of building materials, the thousand and one things needed to keep construction going and workers fed and sheltered come out from Knoxville. All available furnished homes and apartments have been rented by newcomers who have some part in the TVA program.

So it isn't hard to imagine what most people there think of the TVA: They'll tell you it's 100 per cent o.k.

Electric refrigeration dealers in Knoxville, however, are not among those who have *nothing* but good

things to say about TVA. They admit it has given general business a tremendous boost, but what the proposed sale of low-priced TVA appliances is doing, and may do, to their particular line of business is a different story.

As yet, they haven't seen any of these appliances and don't know when they will, nor have they learned exactly how the EH & FA will handle paper on sales of these items, who is expected to service them, who will bear installation costs, etc. Only thing they know definitely is that they will eventually handle these appliances, if their manufacturers have had models approved, and will receive promotional backing from the EH & FA.

M. I. Hamm, residential sales supervisor of the Tennessee Public Service Co., which handles General Electric refrigerators in Knoxville, said dealers he had talked to were divided in their reactions to the TVA-approved appliance program. One group sees little but good in it, because the low-priced appliances will draw prospects to salesrooms. The other side looks upon the idea with disfavor, says there is no profit in selling appliances at such prices as those suggested.

Dealers we visited mentioned both of these points, and more, too. Read on. R. D. Anderson of the East Tennessee Electric Co.—Kelvinator distribu-

tor—manages that company's retail store in Knoxville, one of the biggest refrigerator operations in town. His remarks ran along these lines:

"People here in the foothills of eastern Tennessee are hard to sell to. The refrigeration saturation in Knoxville is only 15 per cent. But now there is a new class of people coming here—officials of the TVA—and they're demanding refrigerators and ranges in the homes they rent and buy. High current rates held back refrigerator sales, too, so the new low rates effective June 1 will undoubtedly be a big help."

"Sale of TVA-approved appliances (Concluded on Page 4, Column 1)

Public Taste in Cabinet Finishes To be Surveyed

Porcelain Institute Seeks To Boost Interest In Exteriors

By John T. Schaefer

CLEVELAND—Much concerned over the progress of non-porcelain finishes in the refrigeration field, the porcelain enamel industry met at the Statler hotel here Wednesday and Thursday to discuss methods of making its product better understood by the electric refrigeration industry and by the public.

To do this, an educational bureau of the Porcelain Enamel Institute was organized (1) to assist refrigerating engineers and other designers in the most effective utilization of the advantages of porcelain, and (2) to bring about an appreciation of the finish among refrigerator users.

The first objective is to be accomplished by a report for engineers with facts and data on porcelain, to be prepared within the next few weeks, according to R. W. Staud of the Benjamin Electric & Mfg. Co., president of the institute.

For the second objective, plans were laid for a survey among 5,000 household refrigerator users to determine what preference exists for porcelain, to be conducted by an independent research agency. Results of this survey are then to be brought to the attention of refrigeration manufacturers and distributors.

The meetings combined the fourth annual convention of the Porcelain Enamel Institute with sessions of the entire porcelain enameling manufacturing industry on code affairs. Executives were present from both coasts, and from as far south as Texas.

Discussions at the various meetings brought out the fact that ranges, washing machines, and refrigerators are the three major appliances to

(Concluded on Page 15, Column 1)

Dr. Churchill, Expert On Refrigerants, Dies

PLYMPTON, Mass.—(Special Wire to ELECTRIC REFRIGERATION NEWS)—Dr. J. B. Churchill, prominent refrigerating engineer and specialist in refrigerants, died at his home here Monday morning at the age of 59. Dr. Churchill's most important contributions to the refrigeration industry were in the design of the Icemaster electric refrigerator and his services as a consulting engineer to various refrigerator manufacturers.

A graduate of Harvard University in 1896, he continued in academic work at Pennsylvania State College starting first as instructor in chemistry. He was later made a full professor at Penn State, and from 1910 to 1915 served as head of the department of chemistry there.

From 1915 to 1918 Dr. Churchill was connected with the Mellon Institute in Pittsburgh, and from 1918 to 1922 he was with the British American Chemical Co. which he left to enter the refrigeration business with the Icemaster Co. in Haverhill, Mass.

Since 1928 he acted as technical adviser to the Icemaster Co. and as a special consulting engineer on matters concerning the chemistry of refrigerants. He was to be buried today (Wednesday) here in Plympton. Dr. Churchill is survived by a wife and one son.

Lehman Will Manage Frigidaire Branch In St. Louis

DAYTON, May 19—Appointment of Herman F. Lehman as manager of the St. Louis branch of Frigidaire Corp., was announced today by H. W. Newell, vice president in charge of sales.

Mr. Lehman has been assistant manager of the commercial division of Frigidaire, with headquarters in Dayton, and formerly was national installation and service manager.

The St. Louis Frigidaire branch has jurisdiction over operations in eastern Missouri and southern Illinois.

Truscon Establishes Detroit Offices

CLEVELAND—Sales offices of the electric refrigeration division of the Truscon Steel Co. have been established at the Universal Cooler plant in Detroit, according to Harry Woodhead, general manager of the Truscon company with offices in Cleveland.

In charge of the Detroit office is R. H. Plumb, general manager of Truscon Laboratories in Detroit.

Harry Frohnapple is the new refrigeration sales manager at the Detroit office, according to W. M. Whalen, general sales manager in Cleveland.

The Truscon company has 15 distributors this year and finds that these are calling for enough shipments so that the addition of more distributors is not contemplated until next year.

Bulletin

THE HOMESTEAD, Hot Springs, Va., May 22—Unanimous agreement on the final revision of the code of fair practices for household electric refrigerator manufacturers was reached here today by executive representatives of the Refrigeration Division of the National Electrical Manufacturers Association.

The revised code has been presented to the National Recovery Administration in Washington, where it must await approval before being made public.

Following companies were represented at the meeting: Frigidaire, General Electric, Kelvinator, Leonard, Westinghouse, Norge, Crosley, Universal Cooler, and Sunbeam.

Another matter of general industry interest discussed at the meeting concerned the proposed government plans for promotion of appliances in the Tennessee Valley by the Electric Home & Farm Authority.

Ward Changes Name Of Refrigerator

CHICAGO—Household electric refrigerators being marketed by Montgomery Ward & Co. this year will no longer be known as "Trukold" electric refrigerators, but will be called "Ward's New Electric Refrigerator," according to J. S. Sayre, appliance sales manager.

Announcements

Final revision of household refrigerator specifications

A final revision of the detailed specifications for all 1934 models of all makes of household electric refrigerators will be published in the May 30 issue.

Note to Subscribers: Send orders immediately for any desired number of copies of this issue for use of your salesmen so that the required press run may be determined in advance. We will guarantee delivery of all paid-in-advance orders which are received by Tuesday, May 29. Act promptly to avoid possible disappointment. Be sure to enclose remittance with order. Extra copies are 10¢ each, postpaid.

Note to Manufacturers: Check up now and make sure that you have replied to our inquiry regarding corrections or additions to the specifications for all models of your household electric refrigerators as published in the March 21, 1934, issue of ELECTRIC REFRIGERATION NEWS and the 1934 REFRIGERATION DIRECTORY AND MARKET DATA BOOK. Your dealers depend upon this data. They will be handicapped and embarrassed if the information regarding your refrigerators is not accurate and complete.

Special Subscription Offer: Send \$2 for an eight months' subscription to ELECTRIC REFRIGERATION NEWS (May to December, 1934, inclusive). You will receive the specifications issue and the back issues for the month of May. You will also receive FREE a copy of the BEER COOLING EQUIPMENT DIRECTORY AND HANDBOOK. Please note, however, that it is necessary to send check or cash with order to obtain this 112-page book free.

Air conditioning to be featured again in June 6 issue

Air conditioning represents the big opportunity for the continued expansion of the refrigeration industry. Important news of developments in this field are being reported every week. Extra space will be devoted to air conditioning in the June 6 issue.

Change of address

All mail for ELECTRIC REFRIGERATION NEWS should now be addressed to 5229 Cass Ave., Detroit, Mich. Telephone trunks to our new home are Columbia 4242, 4243, and 4244. The composing room still remains at our old address, 550 Maccabees Bldg., and may be reached by direct wire, Columbia 4245.

8,409 Refrigerators Sold in 4 Months In Kansas City

KANSAS CITY—Sales of household electric refrigerators in Kansas City by 15 distributors and two mail-order firms totaled 8,409 units for the first four months of 1934, a new record for Kansas City refrigerator retailers over this period, according to G. W. Weston, secretary-manager of the Electric & Radio Association of Kansas City.

Total sales of household refrigerators in Kansas City during 1933 were only 10,300 units, indicating that if the present selling pace is maintained the yearly record may almost be doubled.

Dollar volume of sales through April was approximately \$1,472,000, or an average unit sale price of \$175.

Of the total sales for the first four months 4,630, or more than half, were closed during the month of April.

Kansas City electric refrigeration distributors have waged an intensive cooperative campaign this year. During April cooperative advertisements were run on the average of once a week in the Kansas City newspapers. A full-page advertisement, carrying the copy of the 12 distributing organizations that cooperated with the Kansas City Power & Light Co. in its April campaign, was published in the rotogravure section of the Sunday, April 29, issue of the *Kansas City Star*.

Eloise Davison Gets EH&FA Post

CHATTANOOGA, Tenn.—Appointment of Miss Eloise Davison to direct Electric Home & Farm Authority's domestic electric service program was announced last week by George D. Munger, EH&FA commercial manager, who has headquarters here.

Miss Davison came to the authority from the Bureau of Home Economics in the United States Department of Agriculture, where she had been engaged in establishment of special laboratories to find ways of lightening work in kitchens and in other "work centers" of the home.

This summer, as the initial project for EH&FA, she will cooperate with the home economics departments of the University of Tennessee and other southern universities in home-making courses. She and her staff will also develop a program of cooperation with Tennessee Valley homes, the programs to include aid in cooking, home management, and selection, operation, and care of electric appliances. Her offices will be in Chattanooga.

Kelvinator Develops New Water Cooler

DETROIT—Commercial Sales Manager J. A. Harlan of Kelvinator Corp. last week announced the addition of a new model to Kelvinator's water cooler line. Feature of the new model is that it is equipped with a water-cooled condensing unit.

The water-cooled condensing unit insures maximum efficiency where high temperatures are prevalent, Mr. Harlan explained. The unit employs a 1/4-hp. motor and a counterflow condenser with a solenoid water valve.

Model WCW-612 as the new water cooler will be called is of the pressure type and is intended primarily for industrial use. Equipped with a removable screen that prevents foreign materials from entering the pre-cooler, the appliance finds its best application in textile mills, planing mills, and other plants where dust is excessive.

Kentucky Group Draws up Code Of Fair Practice

Booster Fees, Trade-Ins, And Terms Regulated By Agreement

COVINGTON, Ky.—Twenty-six electric refrigerator dealers operating in Kenton County, Ky., have subscribed to an agreement of fair trade practice dealing with trade-ins, terms, time payments, carrying charges, free gifts, part-time salesmen, and booster fees, according to J. Roberts Copping of the Coppingshop, Covington, and chairman of the fair trade practice committee.

The fair trade practice agreement of the Kenton county retailers is as follows:

"It shall be considered an unfair trade practice to exceed the following maximum allowances on used ice boxes (a) common wood box, no porcelain, 2 per cent of the sale involved (to be figured from the nationally advertised list price); (b) porcelain-lined boxes, 4 per cent of the sale involved; (c) all-metal boxes with painted exterior, 4 per cent of the sale involved; (d) all-porcelain box, 6 per cent of the sale involved. In all cases where an allowance is made the trade-in must be removed from the customer's home.

"It shall be considered an unfair trade practice to give any customer or purchaser a discount for cash. Ninety days may be considered cash and refrigerators may be sold at nationally advertised prices without any additional cost to the customer.

"One time payments interest is to start on the date of sale for face value of the contract when the contract is for more than 90 days.

"It shall be considered an unfair trade practice to charge less than (Concluded on Page 2, Column 1)

C. H. Tanger, Servel Engineer, Dies

EVANSVILLE, Ind.—C. H. Tanger, technical assistant to the senior vice president of Servel, Inc., died unexpectedly at his home here of a cerebral hemorrhage last Friday afternoon. Services were held Sunday afternoon in the Robert Smith Funeral Home in Evansville and interment was Monday afternoon at the Knollwood Cemetery in Cleveland.

The cause of Mr. Tanger's death was a peculiar jolt which he received from another couple while dancing at a party about three weeks ago in Evansville. This broke a blood vessel at the base of his brain, and although he had not been well since the accident (Concluded on Page 2, Column 2)

Munger Made EH&FA Commercial Manager

CHATTANOOGA—George D. Munger, formerly of the Central Hudson Gas & Electric Co. in Poughkeepsie, N. Y., has been appointed commercial manager of the Electric Home & Farm Authority, headquartered here. Assistant to the president of EH&FA is William B. Phillips, who comes from the Erwin, Wasey advertising agency. Forrest Allen is director of public relations for the authority. He was formerly with the Scripps-Howard publication in Knoxville, Tenn.

Covington Dealers Draft Selling Code

(Concluded from Page 1, Column 5)
one-half of 1 per cent per month on the face value of the contract and for the duration of the contract and until all instalments have been made.

"It shall be considered an unfair trade practice for an electric outlet to be given by the dealer or salesman or paid for by the dealer or salesman with the sale of an electric refrigerator.

"It shall be considered an unfair trade practice to offer or give free, an article of value with the sale of an electric refrigerator.

"A part-time salesman is a person not devoting 100 per cent of his time and efforts with one organization. It shall be considered an unfair trade practice for any dealer to employ a part-time salesman.

"It shall be considered an unfair trade practice to offer or give more than 2 per cent of the nationally advertised price and not to exceed \$5 on any one sale to one supplying the name of a person that may become a purchaser. This 'booster fee' is to be paid by the firm represented and charged to the salesman making the sale."

Davega Retail Stores to Sell Stewart-Warners

NEW YORK CITY—The Davega chain of retail stores in the New York metropolitan area has taken on the Stewart-Warner line of electric refrigerators, according to an announcement made last week by Wholesale Radio Equipment Co., local distributor for Stewart-Warner.

Sam and Morty Salzman of the distributing firm conducted a two-day sales meeting on Stewart-Warner.

Dies Suddenly



C. H. TANGER

(Concluded from Page 1, Column 5)
dient, everyone had expected him to recover. Mr. Tanger was 38 years old and is survived by his wife and two small children in Evansville, and his mother and father in Detroit.

He was a member of the American Society of Refrigerating Engineers and presented papers before national meetings. The Detroit section wired flowers for his funeral.

Completing his education at the Massachusetts Institute of Technology, Mr. Tanger went with the Curtis Aircraft Co. His later connections were with Eaton Spring Co. in Cleveland and Zenith Carburetor Co. in Detroit. In 1924 he joined Kelvinator, and in 1928 went to Servel.

Kelvinator Promotes Sale of Deluxe Units With Contest & Special Price Terms

By John S. Garneau

KELVINATOR'S sales campaign this year on deluxe models, which is featured by the "Mystery Cruise" campaign for retail salesmen, climaxes a program begun three years ago. Anticipating the demand for higher-quality merchandise that would follow a break in the depression, Kelvinator prepared to concentrate on her deluxe line before the winter of 1933-34 heralded the turning of the long-looked-for corner.

The theory that increased profits lie in making the public more conscious of the wisdom of buying a multi-featured refrigerator is elementary enough, yet Kelvinator's procedure in capitalizing on this theory is in many ways unique. The influence of an enthusiastic owner in paving the way for new sales is greatest, naturally, when the refrigerator of which she is proud is so complete.

With Kelvinator, as with any other manufacturer marketing lines in different price classes, emphasis on the best line is reflected directly in increased customer good-will. By stressing the added economy, greater convenience and extra features of its deluxe refrigerators, therefore, Kelvinator opened the way toward greater good-will and increased sales.

The battle for more deluxe sales in 1934 is being fought along three fronts. In the first place, we are firmly convinced that the dealer's opportunities for making an excellent deluxe record are greatly enhanced by his having on his floor an adequate display of deluxe model Kelvinators at all times.

Secondly, we believe it necessary that salesmen and dealers be thoroughly trained in the best methods of stepping up a sale from a low to a higher-priced cabinet.

In the third place we have, through our "Mystery Cruise" and related sales contests, recognized the necessity for additional incentives.

No single factor is more important to the success of the deluxe campaign than is the problem of adequate display. Our research and records prove, beyond question or doubt, that a dealer is adequately compensated for the extra expense that is entailed by his making his deluxe display complete.

Particularly is this true in the case of department store outlets. For this reason, simultaneously with the opening of the deluxe campaign on April 15, Kelvinator announced a temporary extension of six months in the period over which the deluxe purchaser may spread his payments.

Even if this change from 24 to 30 months were unsound economically—which we are firmly convinced it is not—the benefits accruing directly to the dealer are tremendous. He is enabled to offer the deluxe purchaser a monthly payment rate as low as that on a cheaper cabinet. The fact that these payments will continue longer than they would on a refrigerator of lower price is relatively unimportant; once the prospective purchaser is convinced that a monthly payment will fit into her budget, the time argument becomes secondary.

because regular payments once begun soon assume a "habit" aspect.

Intimate contact between distributors and wholesale men supplements the work initiated by the time-payment extension. These men carefully consider the case of each dealer, determining what would constitute an adequate display of deluxe models at each point, and follow their conclusions with concerted efforts to make certain that each dealer is sold his quota.

The second pillar in the deluxe campaign, that of educating salesmen to the value of stepping up a sale and of arming them with weapons for closing a prospect on a deluxe cabinet, is being handled mainly through educational literature released periodically from the central offices.

24-Page Booklet

The material recently distributed included a 24-page booklet, entitled "Stepping Them Up to Deluxe," that covered the problem in great detail.

Distributors have been urged to study this booklet with their wholesale men and to make the latter responsible for seeing that the sales story the booklet contains is perfectly understood by the dealers they contact.

Extra incentives, over and above those provided directly by increased earnings and personal satisfaction, are always important to a well-planned sales drive. It is of themselves, however, extra incentives cannot do as satisfactory a job as can be done if the incentives are tied in with the other elements that make up a strong campaign.

Kelvinator, therefore, has never sponsored a sales contest for the sake of the contest alone, or because it simply was time for a contest to be held.

Contests Are Important

Contests, nevertheless, are regarded as a very important feature of the deluxe campaign. Like the campaign itself, the 1934 contests are nationally planned, yet with extreme localization as a basis.

The Kelvinator National DeLuxe Contest is supplemented by a local contest in each territory. Obviously the offering of a limited number of major awards such as the national "Mystery Cruise" contest provides will appeal chiefly to the country's outstanding salesmen. The local contests are designed to capture the interest of the smaller deluxe salesman who possibly feels he cannot win a national award.

Although responsibility for the local contest is left entirely with the campaign manager in each particular territory, the corporation has seen fit to list suggestions it feels would prove helpful. Thus, for example, it is suggested that the local manager allow a certain number of points for every deluxe model sold, with each salesman being allowed to turn in those points for merchandise or cash prizes offered locally.

The suggestion is made, also, that a number of the prizes be reserved for wholesale salesmen, who in a measure are responsible for the success of the campaign through their influence in closing individual sales.

The national contest, as has already been indicated, is built chiefly around the "Mystery Cruise." For every 1,000 cu. ft. of deluxe refrigerator capacity purchased by the distributor between October 1, 1933, and June 30, 1934, the distributor is allowed to designate one retail salesman from his territory to be given the prize trip. If, however, the distributor has been given a quota of less than 1,000 cu. ft. he is still entitled to select a cruise-winner, provided that quota is made.

The distributor is not bound by any factory advice in the matter of designating cruise-winners from his territory. The immediate basis for selection, also, is left for the distributor's decision, to be governed by the conditions peculiar to his territory.

He may, if it appears that only one of his men is to be a cruise-winner, send the salesman with the highest total of deluxe sales, or he may, at the start of the contest, assign each of his men a quota, and give the prize to the salesman exceeding his quota by the greatest percentage.

Other Awards Planned

Regardless of what basis for selection is used, it is obvious that the distributor will have saved himself future embarrassment if he made his decision before announcing the contest to his dealers.

The outstanding wholesale salesman from each Kelvinator district manager's territory will also enjoy the "Mystery Cruise," coming as the guest of H. W. Burritt, vice president in charge of sales.

Each wholesale man will be given a deluxe quota set by the distributor he serves, and prizes will be awarded on the basis of reaching the highest percentage of that quota. Every wholesale man who reaches his deluxe quota will also receive, from Domestic Sales Manager R. I. Petrie, a portfolio suitably inscribed.

Awards to be given to the country's five outstanding distributors, as well as prizes to go to the territorial manager of the deluxe campaign, have also been announced by the corporation.

TEMPIRE

Revolutionized Beer Cooling Methods



Instantaneous Cooling—Temprite basic principle of instantaneous cooling is accomplished by submerging the beer coils directly in liquid refrigerant and is the most efficient and economical method of heat transfer known to science. The beer or beverage is cooled as drawn—when the faucet is closed the cooler ceases operation.

Temperature Control—The temperature control in Temprite is positive and accurate. Regardless of the number of glasses which may be drawn, each is at the selected temperature.

Foam Control—With Temprite the quality of the beer as well as the temperature is definitely assured. Foam is under control and waste is eliminated.

AN IMPORTANT MESSAGE TO DEALERS

The cooler is the heart of the cooling system and Temprite is recognized as the outstanding cooler in the water and beverage cooling fields. Because of Temprite exclusive, direct cooling principle, operating efficiency is at its highest and smaller compressors can be used than in any other type of

system. Temprite, therefore, will materially assist you in profitably extending your commercial business. Today, Temprite is obtaining unprecedented public acceptance and you can secure your share of the business if you organize to go after it. Wire or write for information.

Our new, illustrated, 28 page sales catalog, T-106, has just come off the press and will be mailed to you on request.

TEMPIRE PRODUCTS CORPORATION

(FORMERLY LIQUID COOLER CORPORATION)

Originators of Instantaneous Liquid Cooling Devices
DETROIT, MICHIGAN



CUSTOMER SATISFACTION

a priceless asset to G-E Dealers

"Not a cent for
maintenance in 6 years"



NOT A CENT for maintenance in six years. And only a little more than five cents a day to operate. What a record! And this case is not unusual. It is typical of the experience of the countless thousands of General Electric Refrigerator users.

Think what this means to the G-E dealer in terms of profit—not just immediate profit—but permanent net profit protected by continued customer satisfaction, and multiplied many times over by additional sales due to word of mouth advertising.

General Electric users make no secret about the satis-

faction they derive from the use of their G-E refrigerators. The G-E dealer does not hesitate to refer prospects to those he has already sold. One dealer used a window display to list the names of all G-E users in his community—result: an immediate and healthy increase in business.

The G-E refrigerator's record for dependable performance free from costly servicing has never been matched by any other refrigerator. In the new G-E models distinguished new beauty complements the matchless G-E mechanism. They are equipped with every modern

convenience feature, including adjustable sliding shelves, foot pedal door opener, automatic interior light, and automatic defroster. And now General Electric offers 5 Years' Protection on the Monitor Top sealed-in-steel mechanism for only \$1 a year—the standard 1 year warranty, plus 4 years additional protection against failure, for only \$5. New G-E Flat Top models—the aristocrats of all popular-priced refrigerators—carry the standard 1 Year Warranty. General Electric Company, Electric Refrigeration Department, Section DF52, Nela Park, Cleveland, Ohio.

Pottsville, Penna., March 22, 1934

Mr. William G. Long,
Penns. Power & Light Co.,
Pottsville, Pa.
Dear Mr. Long:

I have run my G-E Refrigerator (large size) for the past six years. It has given perfect satisfaction in that not an ounce of food nor a drop of milk has spoiled during that time. It is evident, therefore, that we consider the money well spent. It is evident, also, that we do not believe that a better machine can be made.

The other night I was interested to learn just what the running of the machine had cost me and from my account book derived the following:

Cost of electric current with the G-E for six years	\$402.72 (a)
" " " without " " "	290.71 (b)
Cost to run the G-E for six years	112.01
" " " per year	18.668
" " " per day	.05115
Maintenance expense	nil.

- (a) For the six years ending February 19, 1934
(b) For the six years preceding the installation of the G-E.

The G-E may have an equal. It cannot have a superior.

Very truly yours,
(signed) B. S. Simonds
1806 Mahantongo St.
Pottsville, Pa.

GENERAL ELECTRIC

All-Steel Refrigerator

Visit the G-E House of Magic at Chicago's Century of Progress

TVA PROGRAM BAFFLES KNOXVILLE DEALERS

(Concluded from Page 1, Column 5) is going to help us and hurt us. It will help, because all the publicity given appliances will make everybody range- and refrigerator-minded. But just how are we going to make any profit selling the stuff?

"This store is going to delay taking it on as long as possible, but when we do start handling it, we'll do everything possible to 'step up' every prospect from the TVA models to one of our regular line on which we can make a decent profit.

The sales outlets, not the manufacturers, are going to take the licking on this program. Manufacturers will make some profit on every TVA unit they turn out—there's no point in their selling at cost—but from the way it looks now, the margin for dealers will be almost negligible."

Right now, the sales manager asserted, a disturbingly large number of prospects is waiting to buy household refrigeration because they "guess they'll wait and see what these new refrigerators are like that can be bought so cheap—the ones all the newspapers are talking about."

Anderson Says TVA 4-ft. Models Are Too Small

"Few will be able to use these TVA-model refrigerators when they do come out," argues Mr. Anderson. "They'll be too small. The TVA wants to sell these 4-cu. ft. models everywhere, but when it bought 100 Kelvinators last week for some of the new houses being built out at Norris Dam, it didn't buy 4-cu. ft. jobs. It bought 6½-cu. ft. models.

"All of us dealers are still in the dark about how the EH & FA is going

to handle repossession and service on the TVA models we sell. It's a cinch we can't service them. The expense of one call would more than eat up what little profit we would make on a sale."

Final statement of this man on the TVA appliance program was, "Generally speaking, it has been a hindrance to our business this year. First, it has delayed some buying. Second, all the talk about low-priced goods has made people think in terms of low-priced refrigeration. Deluxe sales have been unusually hard to make this season."

Woodruff Wonders About Installation Costs

D. F. Baker, vice president and sales manager of the Woodruff Hardware Co., Frigidaire dealer, finds one of the most baffling things about the TVA the as-yet-unanswered question of who is going to bear the expense of installing these TVA-approved appliances, ranges particularly.

"There's a lot of talk about how a TVA range will sell for \$79.50," said he. "It costs about \$30 to install a range, and with the discount a dealer would get on such a sale, he couldn't afford to stand that cost. The TVA will have to absorb it, or stop publicizing such a low price."

Woodruff salesmen have also noticed the tendency of refrigerator prospects to hold back until they have seen TVA models, have found it repeatedly necessary to explain that the latter will be too small for the average family. Mr. Baker intends to use the TVA models only as leaders whenever possible.

"We may have difficulty in selling

refrigerators that are only a bit larger than the TVA unit," he said, "because of finance charges. A credit company charges 8 per cent, and the EH & FA rate may be around 5 per cent. That difference might switch some people to the smaller refrigerator. It's a good thing there will be only one TVA model, and it a small one. If there were a 6-cu. ft. size, there would be trouble."

This man pointed out a reason why indications are doubly favorable that Knoxville's condition will be good for a number of years to come. "Work will probably continue for four or five years at Norris Dam. And just about the time things begin to slacken up there, the Great Smoky National Park development project will be getting completely under way just to the southeast of Knoxville."

Dealer Adds Leonard As 'Price Leader'

At the retail store of the Chapman Drug Co., we found something being done about the TVA-induced interest in low-priced refrigerators. The store had previously been exclusively Westinghouse, but was just taking on the Leonard line, too. "We're going to sell just the smallest Leonard models, and use them as leaders; there isn't a Westinghouse model cheap enough for that," said Miss Bessie Sanland, manager of the store.

"One thing is sure. When we get the TVA models in our store, we won't be able to sell them through outside salesmen or use other specialty methods. All selling will have to be over the counter, or there won't be any profit in it for us."

"There has been so much talk about the TVA and low-priced appliances the public is getting an idea that the government is forcing merchants to reduce their prices."

Despite the fact that these dealers have found some prospects hesitant about buying until TVA appliances

make their appearance, refrigeration sales in Knoxville this spring are considerably ahead of last year.

Martinsville, Va.

South of Roanoke lies Martinsville, Va. We stopped there to visit the Henry County Furniture Co., General Electric dealer, and from George F. Smith, salesman, learned that the store has sold 30 G-E's so far this year, while its ice box sales have numbered only four or five.

"Thing that has surprised us most," he commented, "is that home renters are buying refrigerators. Up to now, it's been next to impossible to sell to anyone who didn't own his own home."

"No use trying to sell electric refrigeration here in the winter. Most of the people who already have it shut off the current as soon as the weather cools off."

Times are fairly good in Martinsville (7,000 population). Seven furniture factories in or near it aren't busy, but there is a new pants factory giving work to 1,200 people, many of them women and girls.

Besides General Electric, of which 300 have been sold by the furniture store since it took on the line several years ago, there are Frigidaire, Kelvinator, Leonard, and Grunow outlets in the town.

Danville, Va.

New Stewart-Warner dealer in Danville, Va. (population 25,000), is the Lewis-Carter Furniture Co., headed by B. G. Lewis. Sold five the first week or so, and has set a quota of 50 for all year.

Other retailers in town are making a big drive for business this summer, because the cotton mills and loose-leaf tobacco sales warehouses have taken on a lot more help than they had last season, and have put some money in circulation. So far this year, all dealers have sold about 500 units.

Biggest portion of the sales went to these retailers, we heard: Smith Motor Co., Kelvinator; Vass-Mobley Hardware Co., Westinghouse; Clements-Parker Co., Frigidaire; Payne Sales Co., Norge; and Clark Electric Co., Grunow.

Durham, N.C.

People didn't stop smoking when the depression hit the country, so Durham, N. C., fared pretty well during the lean years. It is estimated that about 25 per cent of all the cigarettes in the United States are made in that city of 60,000—Lucky Strike and Chesterfield both have big factories there, and so does Bull Durham.

The electric refrigeration business has been good. With the hot weather in that section creating a real need for refrigeration, and the tobacco factories paying wages to buy it with, sales have moved along until saturation in the town's 8,300 metered homes was up to 34 per cent at the end of last year.

Big Ice Box Allowances Hurt Utility's Business

Biggest selling job in town is done by the Durham Public Service Co., handling Frigidaire and Kelvinator. Since it began selling electric refrigerators 10 years ago, it has made 1,900 installations, according to L. C. Goodwin, new-business manager.

He said that in '33, his salesmen sold 468 units, and combined sales of other local outlets were about the same as that. The utility's sales this year have been no better than last, and a considerable slump came during the first week in May. This was occasioned, opined Mr. Goodwin, by

a sharp drop in temperature and a let-down in interest following local appliance shows held the two previous weeks.

His chief complaint about business is that some dealers there are making unreasonably large allowances on old ice boxes. His company never allows more than \$10, he claimed.

The utility is really in competition with itself, because it also operates two ice plants in Durham. They have their own staffs to conduct merchandising programs, however, and are entirely separate from the electric refrigeration sales operation. But when the latter gets an old ice box in a trade deal, it is turned over to one of the ice companies for resale.

L. W. Driscoll, Inc., G-E distributor, has a branch store in Durham, and Andrews & Couch handles Norge.

Leonard Dealer Has Good Ice Box Sales

Despite the headway made by electric refrigeration in Durham, ice is apparently keeping a pretty strong foothold among people who want refrigeration of some kind. Driving into the town, we saw more ice boxes than electrics on display in store windows.

One place with ice boxes in the front window, and a dozen more just inside the door, was the Huntley-Stockton-Hill (furniture) Co. When we heard it also handles Leonard electric refrigerators, we went over. Sure enough, there was Leonard, but clear at the back of the room. "Why?" we queried. "Because I like it back there," was Manager J. A. Schoenberg's answer.

The store took on Leonard in March, hopes to sell 200 by Dec. 31. Its ice box sales average 250 a year.

Kelvinator Distributor Likes Higher Prices

Had an interesting conversation with James T. Little, Kelvinator distributor for most of the Carolinas (headquarters at Greenville, N. C.), when he walked into the utility office to see Mr. Goodwin.

He, too, reported a slump in sales during the first week of this month, explained it thus: "By the first of May, the folks who had decided definitely to buy refrigeration this season had made their purchases; then came cooler weather and held off the buyers who would ordinarily have been forced in by hot weather."

Recent price increases by many manufacturers have made Mr. Little anything but mad. "I was glad to see them," he told us. "We're absorbing the market too quickly, at too small a profit. I'd a lot rather sell 800 jobs a year and make some real money, than sell 1,000 at a smaller profit per sale."

Business prospects are fairly bright in the Carolinas, we learned. The territory is mainly agricultural—to-bacco is product No. 1—and has derived great benefit from the A.A.A. Good crops are expected this season.

Sixty per cent of Mr. Little's dealers are utility companies or their branches, the rest specialty dealers. Most towns in the Carolinas are quite small. Because of that, manufacturers entering the refrigeration field in past two years or so have found it difficult to get good dealers in that territory, the distributor said.

In 1933, 65 per cent of his sales were for 4-cu. ft. models, but so far this year, about that percentage has been fives. From now on 'til the end of the year, however, fours will be the big sellers, he believes, because "force buyers" will comprise the major market.

When Mr. Little said that he "couldn't get along without ELECTRIC REFRIGERATION NEWS," Mr. Goodwin signed up for a year's subscription; then the Kelvinator distributor ordered a copy of the new 1934 REFRIGERATION DIRECTORY AND MARKET DATA BOOK.

How do YOU meet a Sales Situation like THIS?



WHEN THE CHISELING BUYER OFFERS TO BUY AT HIS PRICE - NOT YOURS

POTTER OUTLETS HAVE THE ANSWER!

If you want to know what they do about it, write us and we will tell you! Let us tell you, also, about the Exclusive Potter Franchise.

This is the 4th in a series of Potter messages on meeting the problems which limit your profits. Number 5 will appear in the next issue of E. R. N.

POTTER
REFRIGERATOR
CORPORATION
Buffalo, New York

Designed for Endurance IMPERIAL FITTINGS

THE special conditions of service to which refrigerator parts are subject have been fully provided for in this line of fittings. All nuts, tees, elbows and crosses are made from brass forgings, and will not crack or split. Also a complete line of solder fittings; also of aluminum fittings for use with ammonia. A few of the brass items appear below.



657-F ELBOW



661-F NUT



648-F HALF UNION



661-F REDUCER



642-F UNION



44-S TEE
Solder fitting



660-F VALVE CONNECTOR

Licensed under patents Nos.
1,770,852
1,776,502
1,890,998.

Our line of refrigerator valves is very complete—also our special line of tools for installation and servicing. Write for Catalog No. 77-E.

THE IMPERIAL BRASS MANUFACTURING CO.
565 South Racine Ave., CHICAGO

57,245 SHIPPED IN APRIL

*another
all-time
high record!*



For the past five years—month after month and year after year—Kelvinator Corporation has been *breaking records*. New highs have been established only to be broken—to be surpassed by new, higher records.

In April, 57,245 units were shipped—a gain of 90% over April, 1933, and a gain of 32% over May, 1933, previously the biggest month in the corporation's 20 year history. And wait until you see the figures for May!

All of which proves one thing conclusively—that the *buying public* knows, wants and is *buying* our products in steadily, ever-increasing numbers. From the dealer's standpoint, this situation is of course *ideal* because it insures the dealer a steadily increasing volume and profit . . . KELVINATOR CORPORATION, 14250 Plymouth Road, Detroit, Michigan. Factories also in London, Ontario, and London, England.

NRA
We Do Our Part

KELVINATOR

BOOKS

Sales Managers' Handbook

Editor: John Cameron Aspley. Publisher: The Dartnell Corp., New York. Publication Date: 1934. Pages: 932. Price: \$7.50.

This book, edited by J. C. Aspley, founder and for many years editor of *Sales Management*, purports to provide sales executives with a handbook which includes not only current statistical data needed in managing sales, but also selected experience on those phases of sales management of recurring interest.

While this book is not in any sense a treatise on the NRA codes of fair competition, it makes plain their influence on the various sales activities affected. In point are such sections as "Selling Under the Codes," "Marketing Policies," "Unfair Competition," "Prices and Discounts," and "Special Sales Inducements." Digests of the trade practice provisions of some three hundred approved codes will aid sales and advertising executives in understanding the changing buying habits of customers.

About a third of the contents consists of tabulations, charts, current statistics, and other factual information. The contents are not founded on abstract, "swivel-chair" theory. Instead the handbook digests and summarizes in detail the actual methods of organizations like American Radiator, Travelers Insurance, Armstrong Cork, and Bauer & Black.

Typical treatment is that dealing with compensating salesmen and sales executives. Not only are a good variety of compensation plans outlined, but actual commission rates, salary

figures, yearly earnings, and other details according to business and annual sales, are also given.

Common Sense on Common Stocks

Authors: I. Edwin Tanenbaum and Linhart Sterns. Publisher: Covici Friede, New York City. Publication Date: 1934. Pages: 332. Price: \$2.50.

This book discusses common stocks—their status as investments—what the investor may rightly expect of them—the information he should have in order to judge them and the factors he should consider in attempting to evaluate them. The book is something more than a discourse on common stocks, however, because in discussing the possibilities of certain types of investments the authors turn a critical eye on current activity in certain types of businesses and also take a look into the future of certain commercial ventures.

"Common Sense on Common Stocks" thus is as much a guide to the present status, characteristics, and future possibilities of certain types of businesses as it is a handbook for the investor.

Of principal interest to readers in the electric refrigeration industry are chapters 5, 7, 10, and 11 which deal respectively with "General Aspects of American Industry"; "Public Utilities"; "Manufacturing Industries"; "Retail Distribution."

Chapter 10 is probably the most interesting in the book. It points to a number of facts which should be heartening to those engaged in the electrical appliance industry. Exemplary of this are the following passages:

"...a rise in the standard of living must be accompanied by a further development in those industries which produce the goods the possession of

which is a measure of the standard of living. It is obvious that the manufacturing industries, taken as a whole, must offer the investor in common stocks at least one of the primary advantages which he desires when making this type of investment."

"...it should not be presumed that it is unimportant to differentiate between the various branches of the (electrical) business. Thus the country may be well supplied with electric flatirons or vacuum cleaners and yet may be able to absorb many more refrigerators or electric ranges..."

"Even those who believe that the generating equipment now in operation in the U. S. is more than adequate for the time being, agree that the country can absorb many more domestic appliances and other types of small equipment. The country is also looking forward to the production of some entirely new forms of equipment, such as air conditioning. It is apparent that the volume of production in the electrical equipment industry promises to increase—it is not so apparent that profits will keep up with this increased volume."

The electric refrigerator has met with great public acceptance, but the better known electrical equipment manufacturers have not enjoyed the major part of the sales. It is probable that a great part of the profits derived from the production of the electric refrigerators was not enjoyed by the electrical equipment industry."

The authors sound a warning to investors on the air-conditioning industry, pointing out that for a while, at least, there will apparently be a surplus of enterprises in this field. Says their book:

"We seem to be on the verge of air conditioning our homes and offices—but there are already a score of companies preparing to enter this field, with the result that although air-conditioning equipment may have a tremendous sale, the profits accruing to any particular manufacturer

of electrical equipment may not be as large as would be expected from this new development."

After picturing the somewhat "darker" aspects of investing in electrical manufacturing firms the authors go on to say that scientific and technological developments and the importance of the application of electricity to modern life do not justify the investor in taking a pessimistic view of the future of the electrical industry.

In their chapter on "Aspects of American Industry" the authors reflect the feeling that the United States seems now to be destined to enter a different phase of economic and social organization. They point out that in the future there will be a more restricted sphere available to the activities of the pioneering spirit and that this means also that if any ordered society is to remain within our borders a much greater economic and social stability is indicated.

This will mean, they point out, that the land will no longer be the principal basis for a rise in the American standard of living. The future course of American prosperity will thus depend upon the building up of a higher standard of living in the home, and in the communities in which the people now live, rather than the building up of a great national prosperity as a result of mass moving to entirely new results.

The authors do not paint a very rosy picture of the power industry. They declare that the fact that the common stocks of the power industry offer very little protection against a currency inflation and the probability that the trends of political and public opinion will be adverse to the privately owned and operated utilities, coupled with the tendency of this industry to follow some of the financial mistakes which the railroads made, do not make most electric light and power stocks appear very attractive.

In the chapter on retail distribution is to be found an interesting dissertation on the probable effect of inflation on retailers. It is pointed out that however it may seem on the surface, the retailing business is not a good "hedge" against inflation.

An inflation, the authors declare, usually brings with it a reduction in the real purchasing power of the community, and it is punctuated by successive waves of sales resistance. If a retail organization could always mark up the selling price of its merchandise so that the amount of money it receives would keep step with the additional costs due to inflation, then retail organizations would offer a good hedge against inflation. On the other hand, even if they could do this they still probably would not be able to maintain their unit volume of sales, with the result that although they received higher prices they might not sell enough goods to be able to pay their overhead expenses. An inflation, therefore, presents particular problems to retailers—problems which are exceedingly difficult to solve.

Household Refrigeration

Author: H. B. Hull. Publisher: Nickerson & Collins Co., 435 N. Waller Ave., Chicago, Ill. Date of Publication: 1933. Number of pages: 690. Price: \$4 with cloth binding, \$5 with morocco binding.

This fourth edition of Hull's book—the only text of its kind devoted almost exclusively to household refrigeration—has been extensively revised since the third edition of 1927 to include many of the new developments in thermodynamics, heat transfer, food technology, refrigerant characteristics, compressor design, and small air conditioners.

The book explains the fundamental theory of refrigeration, briefly traces some of its early development stages, and then shows its usefulness in preservation of perishable foods. It then launches into thorough engineering treatments of properties of refrigerants, thermodynamics and physical chemistry of refrigeration, heat transmission, and describes most of the common makes of electric refrigerators.

The last three chapters discuss air conditioning, commercial refrigeration, and miscellaneous facts about refrigeration which are presented in a series of tables.

The book is well written, adequately illustrated, and like its previous editions will probably be used as one of the standard reference texts on household electric refrigeration.

Haushalt-Kaltemaschinen

Authors: Doctors Rudolph Plank and J. Kuprianoff. Publisher: Julius Springer, Verlagsbuchhandlung, Berlin W9, Linkstraße, 23-24, Germany. Date of Publication: 1934. Number of pages: 182.

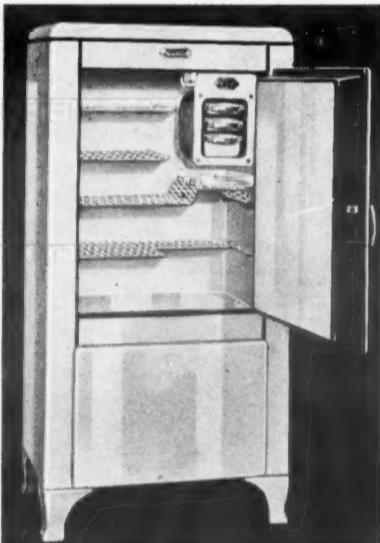
Written in German by Dr. Plank, director of the refrigeration laboratory at the Karlsruhe Institute, and his assistant, Dr. Kuprianoff, this new book should be of genuine interest to those who can read German.

The two authors, it will be remembered, visited many refrigeration plants, engineers, and manufacturers in this country two years ago to study American practices.

The book is devoted almost entirely to household refrigeration, with minor attention to small commercial applications such as water cooling. It is thoroughly illustrated with sectional drawings of the various designs of small compressors, valves, controls, seals, insulation construction, etc. used both here and in Europe.

Of particular interest are descriptions and operating diagrams of some of the small ammonia absorption systems which have been developed extensively in Europe for household refrigeration. The book also discusses Kelvinator, G-E, Frigidaire, Norge, Williams, Coldspot, Majestic, Universal Cooler, Electrolux, Gibson, and other popular American makes.

MOST FOR THE MONEY



Model P-704



Model S.A. 1/4 H.P.

COPELAND REFRIGERATION CORP., Mount Clemens, Mich.

Copeland
DEPENDABLE ELECTRIC REFRIGERATION

That's the story we hear from all over the country. Critical comparisons are daily made with other makes of refrigerators and distributors find that, point for point, Copeland Domestic Refrigerators offer more selling advantages, have more popular appeal than many offerings at higher prices.

Distributors discover that Copeland is liked for its Simplicity, Economy and Convenience. Every item about each model has been worked out for the satisfaction of the user, to insure certain performance at a price customers can afford to pay.

There are seven choices in cabinets. Four lacquer finished models and three cabinets in porcelain enamel. The sizes are from 4 cu. ft. to 7.5 cu. ft. net storage capacity.

In addition to the Household line, Copeland is making 21 standard models of Commercial Condensing Units suitable for every purpose of Automatic Refrigeration. Sizes from 1/2 H.P. to 3 H.P., 1, 2, and 3 cylinder compressors, air or water cooled.

Copeland still has some open territory, to be assigned to reliable, aggressive distributors. Write today if interested and qualified.



The Model S-100 "Servomor" dispensing counter with Monel Metal top. Fabricated by C. Nelson Manufacturing Co., St. Louis, Missouri.

The C. Nelson Manufacturing Co.'s Ice Cream Cabinet model P-2 (2 Round Sleeves), with Monel Metal top.

resists corrosion. It's absolutely rust-proof.

In short, a Monel Metal cabinet top keeps its sales appeal.

These are the powerful sales arguments with which C. Nelson Manufacturing Co. arms itself, by choosing Monel Metal for the tops of its better models. This company has been selling Monel Metal-topped cabinets for years.

See the INCO Exhibit of Monel Metal Household Appliances at A Century of Progress, Chicago—1934 Home Planning Hall

Monel Metal has excellent fabricating properties for welding, forming, brazing, drawing, soldering.

Let us send you complete information on the use of this tough, silvery Nickel alloy for ice cream cabinets and other refrigeration and display equipment. Write today.

THE INTERNATIONAL NICKEL COMPANY, INC.
67 WALL STREET NEW YORK, N.Y.

Monel Metal

Monel Metal is a registered trademark of the International Nickel Company. It is approximately two-thirds Nickel and one-third copper. Monel Metal is made from sheet, wire, rods, bars and marketed solely by International Nickel.

NRA

WHEN your prospect is deciding which ice cream cabinet to buy, he asks himself how much it is likely to help his ice cream sales.

There's no argument about the cabinet with a Monel Metal top ... it gleams with sales appeal.

And, what's more, it keeps on gleaming. Years of service...hard service that would take the sparkle out of tops made from ordinary material ... leave Monel Metal cabinet tops in good condition.

For Monel Metal is tough enough to stand the ordinary blows and rough handling of daily use. Being solid metal, right through, there is no coating to chip, crack or wear off.

Neither does a Monel Metal cabinet top become shabby by constant cleaning. Even harsh, abrasive cleaners can't harm its silvery surfaces. It

Kelvinator to Open New Dining Room

DETROIT—Celebrating the opening of spacious new employes' dining rooms on the third floor of its Plymouth Road plant, Kelvinator Corp.'s employees, their families, and friends will stage a gala Spring Frolic Thursday, May 24.

The festivities will begin with a baseball game at 5:30 p. m. between teams of girls representing the offices and shop. At 8:00 p. m. a program of dancing, floor shows, games, specialties, acrobatics, and novelties will be presented in the new dining quarters. All the entertainment will be provided by persons connected directly with the Detroit or Grand Rapids Kelvinator organizations.

Committee chairmen for the affair include the following: arrangements, H. J. Fitzpatrick; orchestra, H. Priest and F. G. Hulburd; choir, David Bevan; publicity, Truman Steinko; productions, Fred Fox; wardrobe, Maud Johnson; property, L. C. Roberts; tickets, Helen Beck; stage, W. T. Buckridge; decorations, Roy Hunter; equipment and electrical, L. King and W. Sutterfield; games, J. S. Garceau; finances, J. J. Tempy.

Four Promotions Made By Rex Cole, Inc.

NEW YORK CITY—Robert Stevenson, vice president and general manager of Rex Cole, Inc., metropolitan G-E distributor, has announced the following personnel changes:

John Roth has been placed in charge of the commercial division of the service department; William B. Harvey becomes head of the domestic branch of the service department; L. A. Bachman will direct the activities of the Long Island City warehouse of the operating department; and John K. Kromholz is appointed office manager for the White Plains division.

All these men have been with Rex Cole, Inc., for a number of years. Mr. Roth joined the organization in February, 1930, and has been connected with the service department since that time.

Mr. Harvey was one of the original members of the service department, having been with Rex Cole, Inc., since May, 1927. He is a brother of Fred Harvey, district representative for the specialty appliance sales department of General Electric.

Mr. Bachman, too, entered the employ of Rex Cole in 1927 as a salesman. Mr. Kromholz, who fills the position vacated by Mr. Bachman, has been a member of the Rex Cole sales force since 1929.

N. J. Utility Installs 578 Electrolux Units

NEWARK—Installations of Electrolux gas refrigerators by operating companies of the Public Service Corp. of New Jersey during the period from Jan. 2 to April 1 this year totaled 578 units, according to a report published in *Public Service News*, official publication of the Jersey utility.

Total installations for this period were greater than similar periods in any other year since 1929.

During the week ending April 21, representatives of Public Service Corp. of New Jersey sold 119 Electrolux units, an all-time weekly sales record for the utility.

Lockton Made Assistant Treasurer of G-E

SCHENECTADY—John D. Lockton was elected assistant treasurer of the General Electric Co. at the last meeting of the board of directors, it has been announced by R. S. Murray, treasurer.

Graduated from the University of Michigan in 1926, Mr. Lockton entered the disbursements division of the G-E accounting department at Schenectady, and in 1928 was transferred to the auditing department. In 1932 he became assistant to the treasurer, which position he held when elected assistant treasurer.

G-E Kitchen Opened By Maine Utility

SANFORD, Me.—Feature of the new appliance showroom opened here by the Cumberland County Power & Light Co. is a General Electric all-electric kitchen, a permanent exhibit.

The power company is sponsoring special home service courses for Nason Institute, a finishing school for girls located at Springdale, Me., and for the high school home economics classes here.

Beaver Falls, Pa., Dealer Wins Display Prize

BEAVER FALLS, Pa.—A. H. McMan, General Electric, was awarded first prize among exhibitors for his display of G-E appliances at the local "Century of Progress" show.



"... you bet your life. We've got Dry-Zero insulation in our box. It'll operate for about 60% less than the one you're talking about."

Dry-Zero offers one of the best selling points any salesman of a Dry-Zero insulated job can use. It is the chief reason why a low temperature can be maintained in the box with a minimum consumption of current. Dry-Zero assures economical operation for the life of the refrigerator. If you want the complete story of Dry-Zero insulation, write for "What is Dry-Zero."

DRY-ZERO
REG. U. S. PAT. OFF.
THE MOST EFFICIENT
COMMERCIAL INSULANT KNOWN

Dry-Zero Corporation •

CHICAGO
Merchandise Mart

TORONTO
687 Broadview Ave.

Rex Cole Is at the Other End



P. B. Zimmerman, Jean DeJen, Art Scaife, and Walter Daily send congratulations to Rex Cole for his work in the "All-Star Discovery Drive" over a teletype in the G-E office in Nela Park, Cleveland.

Ice 'Emergency' Is Declared in Macon

WASHINGTON, D. C.—Acting upon the recommendation of the code authority for the ice industry, National Recovery Administrator Hugh S. Johnson on May 8 declared the existence of an "emergency" within the competitive area of Macon, Ga., and announced that a public hearing would be conducted for the purpose of establishing a schedule of minimum prices for artificial ice sold in, or into, that area.

On May 9 the NRA announced that public hearings will be conducted in Dallas, San Antonio, Ft. Worth, Texas, and New Orleans, La., "for the purpose of establishing a schedule of minimum prices for artificial ice" sold in such areas, in accordance with provisions of the code of fair competition for the ice industry.

These are the first applications of recently approved amendments to the ice industry codes designed to prevent "price wars" in highly competitive areas within the ice industry. Under the approved regulations, the administrator is empowered to establish a

schedule of minimum prices for natural or artificial ice in any area where an emergency is found to exist as a result of destructive price cutting, whether due to excessive over-production, increased supply, or any other cause.

The schedule to be established by the administrator, it is provided, will be based upon the lowest reasonable cost of a representative operation located within the affected competitive area; and it may be set only after a public hearing of all parties concerned, including consumer interests.

The Macon hearing was set for Thursday, May 17, in the court room of the Federal building (at Macon); the Dallas hearing will be Monday, May 28, in the City Hall; the San Antonio hearing Wednesday, May 23, in the Plaza hotel; the Ft. Worth hearing Friday, May 25, in the Old Federal building; and the New Orleans hearing Monday, May 21, in the Association of Commerce building.

New Orleans Complaint

NEW ORLEANS—A bill of complaint has been filed in the Federal District Court for the Eastern Dis-

trict of Louisiana against the Truckers Ice & Cold Storage Co. of Kenner, La., by U. S. District Attorney Rene A. Viosca and William H. Griffin, assistant counsel, litigation division, NRA, charging that concern with selling ice outside of its normal market at a price lower than that existing in the invaded market, thereby disrupting the ice business in the new market and seriously injuring the ice dealers in that area.

This is the first case of this kind brought under an NRA code, and is regarded by the litigation division as an important test case.

U. S. Judge Wayne G. Borah, despite arguments by the defendant, granted a temporary stay requiring the defendant to comply with the code provisions.

Keystone Appliances Opens New Office

HARRISBURG, Pa.—Keystone Appliances, Inc., G-E distributor for central Pennsylvania, has established new offices and showrooms in a two-story building here.

Main showroom section is devoted entirely to kitchen appliances, radios, etc. On the second level of the main floor is displayed an all-electric kitchen, Russ equipment, milk-cooling equipment, commercial compressors, and G-E oil and gas furnaces. The entire second floor is given over to general offices.

Keystone has recently named five new department stores to handle G-E appliances, namely, Bowman & Co., Harrisburg; Hess Bros., Allentown; Hager & Bros., Inc., Lancaster; Fowler, Dick & Walker, Wilkes-Barre; and The Bon Ton Store, Hazleton.

NEWARK—Eight makes of electric refrigerators were exhibited at the electric refrigeration show here, sponsored by the Essex Electrical League and held in conjunction with the Pure Food Show which closed May 16. The following firms exhibited:

Apollo Radio, Inc.; Crosley; Frigidaire Sales Co.; Frigidaire; P. H. Harrison & Co.; General Electric; Alfred Lifson & Sons; Grunow; Griffith Piano Co.; Kelvinator; Public Service Electric & Gas Co.; Kelvinator; Aladdin Oil Burner Corp.; Norge; and Electrical Equipment Corp.; Westinghouse.

Howe & Co. Will Handle Sparton in Boston

JACKSON, Mich.—Howe & Co., electric appliance distributing firm of Boston, has been appointed distributor of Sparton electric refrigerators, it was announced last week by the officials of Sparks-Withington Co.

HOUSEHOLD ELECTRIC REFRIGERATION by



Six Popularly Priced Models

A LINE YOU CAN SELL with PRIDE and PROFIT



Model T-450



Model T-550



Model T-800

Truscon Electric Refrigerators are modern to the last minute. Every desirable feature that science and experience have proved worthwhile has been included. Quality construction—advanced design and trouble-free operation are among their outstanding characteristics. And these refrigerators are produced by a company of great financial strength—a company that for 30 years has been known throughout the world as a manufacturer of quality steel products—holding the highest conception of customer obligation. Write today for complete catalog giving full specifications of this excellent line.

DISTRIBUTORS - DEALERS

Desirable territories are open. Write for details of franchise proposition.

TRUSCON STEEL CO.
Electric Refrigeration Division
CLEVELAND • OHIO

Ethel Shutta Tests a Potter



Ethel Shutta, vocalist with George Olsen's band (she is also Mrs. Olsen), dropped in at the Potter showroom in Buffalo to see a D-159 model.

Exports of Electric Refrigerators

February, 1934, Shipments Reported by the Bureau of Foreign and Domestic Commerce, Washington, D. C.

	Electric Household Refrigerators Number	\$ Value	Commercial Refrigerators Up to 1 Ton Number	\$ Value	Parts for Electric Refrigerators Value
Austria	...	...	...	...	112
Azores and Maderia Islands	...	...	...	129	...
Belgium	34	3,005	49	5,306	10,343
Czechoslovakia	5	238	21	1,520	368
Denmark	5	238	2	384	1,331
Finland	736	45,175	27	2,784	209
France	323	14,309	2	329	31,645
Germany	6	590	1	92	3,908
Gibraltar	23	2,964	1	94	337
Greece	...	...	...	80	...
Iceland	...	...	...	1	...
Irish Free State	97	8,429	18	1,608	8,587
Italy	2	178	...	...	...
Netherlands	229	14,119	60	4,328	11,694
Poland and Danzig	2	192	12	1,098	400
Rumania	10	775	...	...	45
Spain	178	14,742	69	6,253	8,319
Sweden	5	534	58	5,967	5,397
Switzerland	20	1,523	5	501	3,190
United Kingdom	579	52,355	2,309	112,740	55,712
Yugoslavia	47	4,535	165	10,102	39,445
Canada	3	269	...	53	...
Costa Rica	...	...	...	92	...
Guatemala	6	882	1	374	...
Honduras	17	2,057	...	...	3,721
Salvador	2	153	...	...	...
Mexico	220	7,019	4	1,094	7,099
Bermudas	11	1,141	1	200	466
Barbados	1	25	...	49	...
Jamaica	...	...	1	69	12
Trinidad and Tobago	2	177	...	48	...
Other British West Indies	3	307	1	250	185
Cuba	5	638	...	...	192
Dominican Republic	5	472	...	...	23
Netherland West Indies	7	756	3	905	58
French West Indies	...	...	...	5	...
Haiti, Republic of	4	320	...	11	...
Virgin Islands of U. S.	...	...	...	100	...
Argentina	...	...	...	6,270	...
Brazil	100	11,524	22	2,791	8,077
Chile	8	795	2	443	112
Colombia	9	905	...	669	...
Ecuador	4	428	...	5	...
British Guiana	3	184	...	58	...
Surinam	4	461	...	...	...
Peru	12	867	...	83	...
Uruguay	14	1,504	1	43	939
Venezuela	37	3,154	...	347	...
Arabia	...	...	...	12	...
British India	288	23,734	28	2,250	2,289
British Malaya	88	7,896	4	1,662	1,081
Ceylon	...	...	...	60	...
China	146	16,519	...	...	2,897
Netherland East Indies	70	6,124	2	412	1,237
French Indo-China	68	3,080	...	60	...
Hong Kong	36	4,268	2	150	208
Iraq	1	100	...	...	...
Japan	10	999	...	...	1,850
Palestine	61	4,487	12	1,887	1,682
Philippine Islands	91	10,045	5	1,525	1,138
Turkey	67	5,620	21	3,352	295
Australia	18	1,071	...	...	5,005
French Oceania	1	215	1	162	...
New Zealand	7	426	...	628	...
British East Africa	23	2,133	...	...	8,660
Union of South Africa	973	77,007	...	...	...
Other British South Africa	3	682	...	314	...
Gold Coast	7	519	...	307	...
Nigeria	10	850	...	3	...
Egypt	36	3,241	2	115	585
Algeria and Tunisia	149	11,546	1	150	919
Other French Africa	1	78	...	...	...
Liberia	1	123	...	...	...
Morocco	137	12,575	14	961	253
Mozambique	7	661	...	...	232
Canary Islands	16	1,454	...	50	...
Other Spanish Africa	10	540	...	73	...
Total	5,079	\$398,857	2,948	\$173,723	\$238,978
Shipments to Hawaii	61	6,681	2	593	2,306
Puerto Rico	27	1,999	3	1,747	453

Norge Salesmen Seek \$25,000 Awards

DETROIT—Starting May 1, all Norge retail salesmen who are members of the Norge "Viking" and "Norsemen" organizations (leading salesmen) opened competition for \$25,000 in cash awards and bonuses which is being offered by Norge Corp. for resultful sales effort between May 1 and June 30.

Every qualified Viking and Norseman who makes a sale will get extra money. The \$25,000 is to be split up in exact proportion to the resultful effort of each man.

Every sale of any Norge product scores a definite number of points, the point system being based on the dollar value of the particular sale.

Frigidaire Has Exhibit At Belgian Fair

BRUSSELS, Belgium—Frigidaire distributor here recently sponsored an exhibit of Frigidaire household and commercial equipment at the Foire Commerciale (commercial fair) held in this city.

BOTTLE COOLERS



FOUR MODELS

Ask for our New, REDUCED Prices and Catalog.

S. & S. PRODUCTS CO.
P. O. Box N876,
LIMA, OHIO

Jobber Agents Visit Westinghouse Plants

MANSFIELD—Westinghouse jobbers from all parts of the country held their twentieth annual meeting at merchandising department headquarters of the company here last week. The convention lasted five days, and was the first ever held at the factory. Eighteen of the previous meetings were held at Hot Springs, Va.

Commenting on business conditions, A. W. Robertson, chairman of the Westinghouse board, said, "The present is very good; we don't know anything about the future—no use to worry about that. We are off this year to a flying start. This organization has a young, fresh management. Thank heavens we have gone through four years of depression, still have money in the treasury and don't owe anybody."

Arthur E. Allen, new Westinghouse vice president in charge of all merchandising department activities, said, "Orders received during the first quarter of 1934 showed a 57 per cent increase over the same period for 1933. Bookings and sales billed in the last two months have been the highest in several years."

"Refrigerator sales have increased every month during 1934 until in April we showed a 158 per cent increase over April, 1933, and the entire four-month period showed an 80 per cent increase over the first four months of 1933."

The increase in range sales for this same period has been more than 300 per cent; commercial refrigeration, 242 per cent; water heaters, 252 per cent; vacuum cleaners, 228 per cent; heating appliances, 81 per cent; washing machines, 255 per cent; food mixers, 351 per cent; and fans a 20 per cent greater dealer coverage than last year."

During their stay in Mansfield the jobbers visited the Westinghouse Home of Tomorrow, and on the fifth day went to the company's lighting studios in Cleveland.

Leonard Sales for Six Months Increase

DETROIT—Shipments of the Leonard Refrigerator Co. for the first half of its fiscal year, ended with March, set a new high for that organization and exceeded shipments of the same period in the last fiscal year by 75 per cent, according to H. W. Burritt, vice president in charge of sales.

"Although sales quotas were set higher this year, all of our district managers exceeded their quotas for the six months," he states. Percentage of quota obtained by each of these men was announced as follows:

J. B. Nicolson, California and west Texas, 251 per cent; R. W. Jones, northwest, 245 per cent; Lee Stratton, middlewest, 157 per cent; G. B. Gray, southwest, 192 per cent; S. R. Camper, Ohio, Michigan, and Indiana, 190 per cent; B. T. Roe, Pennsylvania, western New York, Washington, D. C., 181 per cent; G. E. Rogo, eastern New York and New England, 138 per cent; E. E. White, southern states, 211 per cent; and M. E. Ewing, north central states, 163 per cent.

Largest gain in shipments was made to dealers in Detroit, where Euhl & Sons Co. is the distributor.

'Payne's for Music' Goes Into New Quarters

GREENVILLE, S. C.—"Payne's for Music," music houses carrying a complete line of General Electric appliances, moved to new quarters in the heart of the downtown section here recently.

Half-hour radio broadcasts from the store in the morning and evening, addresses by Mayor John Mauldin and Roger C. Peace, president of the Greenville chamber of commerce, and music were features of the opening day planned by D. W. Payne, head of the company.

Navy Buys 10 Starr Refrigerators

RICHMOND, Ind.—Ten double-door household electric refrigerator models and 15 water coolers were recently purchased by the Navy Department from The Starr Co. for installation in the Navy yards at Philadelphia and Charlestown, Mass.

Starr refrigerator equipment has also been placed on a number of Navy fighting ships, the most recent installation being on the battleship New Mexico.

11 Cooking Schools Bring 40 Kelvinator Sales

PITTSBURGH—Miss Hattie Chaney, home economist with the C. R. Rogers Co., Kelvinator distributor, recently conducted 11 cooking schools within a two weeks' period. According to the distributor, a total of 40 sales resulted from this home service activity.

G-E Appliances Used in Remodeled Kitchen

HIGHLAND PARK, Ill.—Henry W. Nordin Co., G-E dealer at Winnetka, Ill., has installed an all-electric kitchen in the home of Frank J. Shelton of this city. Installation was made under the supervision of Fred A. Ramsdell, manager of the kitchen appliance department of R. Cooper Jr., Inc., Chicago distributor.

Modernization of the kitchen was completed in five days, workmen beginning the job on Monday morning and completing it by Saturday noon. In addition to installing the appliances the modernization program called for the lowering of the ceiling, partly rearranging one partition, changing windows, complete rewiring, resurfacing floors and walls, replastering, and painting.

Appliances installed include a Moni-

tor Top refrigerator, range, dishwasher, ventilating fan, radio, clock, and G-E wiring, a Beardslee chandelier, soft lighting over the sink, steel cabinets, and sink. Chimes replaced the electric doorbell and a Monel metal table and a Howell kitchen chair were installed.

Floor was covered with "Sealex" Veltone linoleum in black marble with orange band and the walls wainscoted with tile.

When the kitchen was completed Mr. and Mrs. Shelton held open house and a total of 186 prospects inspected the new "guest room."

Mildon New Westinghouse Vice President

SOUTH PHILADELPHIA—R. B. Mildon, formerly assistant to the vice president of Westinghouse Electric & Mfg. Co. in East Pittsburgh, has been made a vice president.

G-E Orders Up 300% Over May, 1933

CLEVELAND—Orders for General Electric refrigerators are running 300 per cent ahead of May of last year, according to P. B. Zimmerman, manager of the company's specialty appliances sales department.

"Our refrigerator factories are operating at maximum capacity," he says, "but sales are exceeding production. More employees have been added at our factories in Schenectady, Ft. Wayne, Ind., and Erie, Pa., and production has been placed on a 24-hour basis. To fill orders this production schedule will be maintained into June."

"Our New York distributor alone sold \$500,000 worth of refrigerators in the first half of our present spring campaign. Cleveland sales have more than doubled, while Boston and other

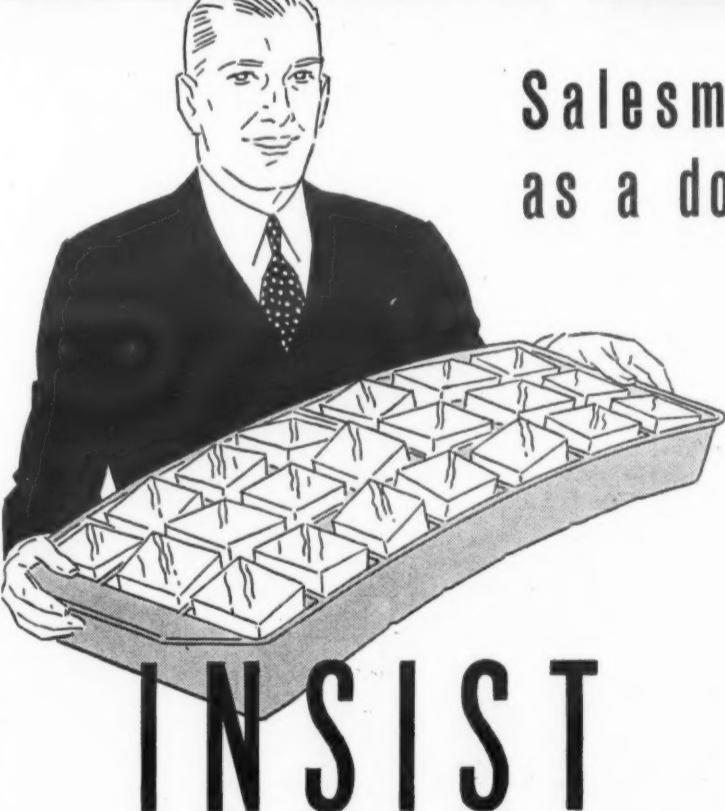
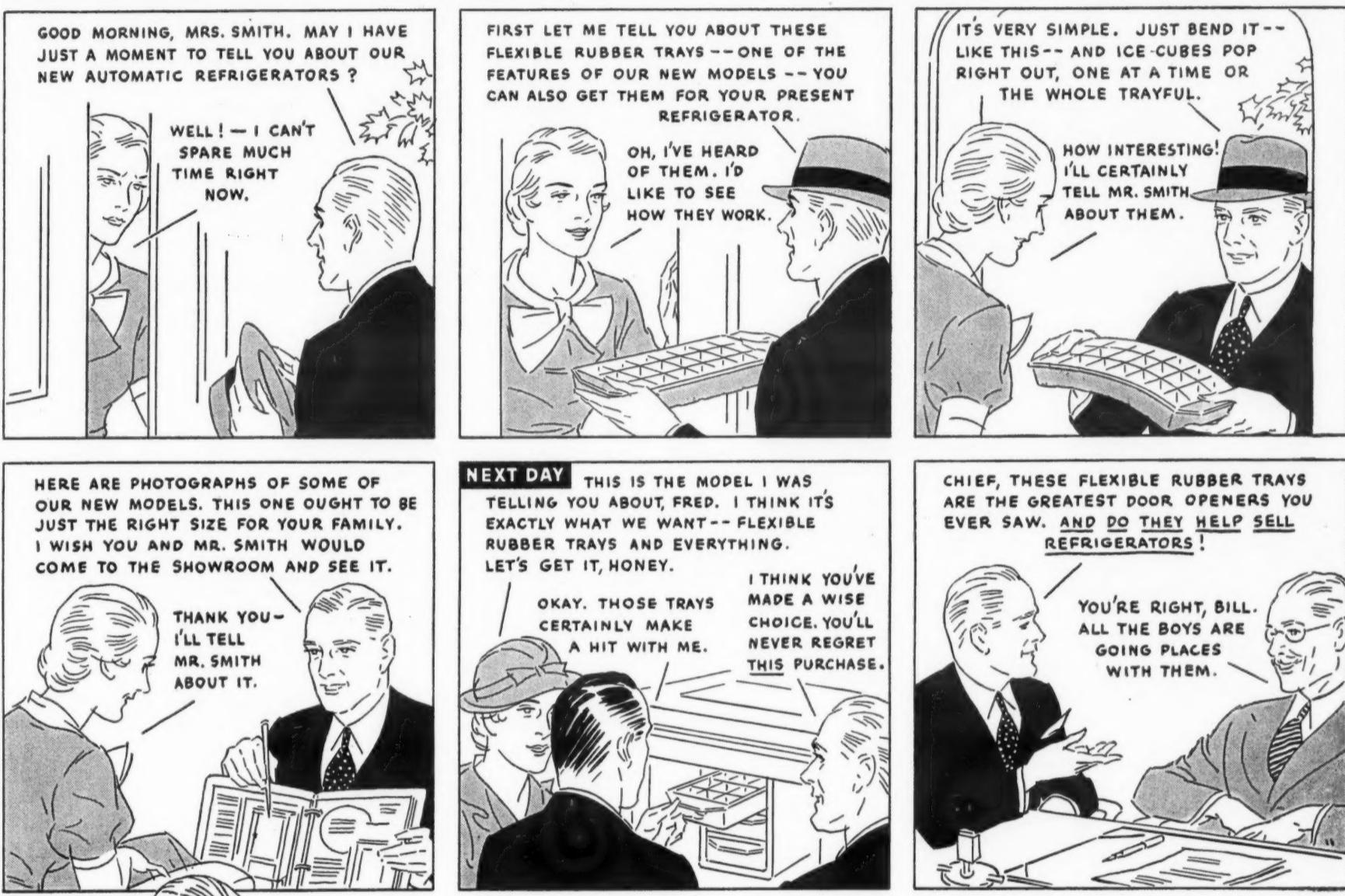
eastern cities have shown big increases. The South is surging ahead in sales, while Chicago is establishing new sales records."

Leu Leads R. Cooper Sales Contest

CHICAGO—R. E. Leu was leading in the non-selling employes' contest being sponsored by R. Cooper Jr., Inc., General Electric distributor here, when the competition concluded one of its laps on May 5. Mr. Leu on that date had submitted 146 leads. Next were E. Rubaskin with 141 leads, and E. Wenstrom with 119.

All non-selling employes of the distributorship are divided into three groups. On May 5, the division headed by Sid Thompson was in first position with 811 leads, H. Hockett's group was second with 794, and R. D. Van Kirk's unit third with 767.

HOW TO MAKE A "COLD" CANVASS "HOT"



Salesmen! Use Flexible Rubber Trays as a door opener and get better results from your cold canvassing...

You're bound to get more interviews, line up more prospects and chalk up more sales if you use Flexible Rubber Trays as a door opener and an entering wedge to your refrigerator sales story.

Ask any salesman who has tried it!

The reason, of course, is that everyone is interested in new conveniences for the home. And Flexible Rubber Trays and Grids are among the greatest time and trouble savers ever invented. In fact, the demand for these remarkable trays has become so great that more than a million were sold last year alone!

During 1934, advertisements in leading national magazines are tell-

ing America more about them. These advertisements will appear in The Saturday Evening Post, Collier's, Good Housekeeping, Woman's Home Companion, Time and the New Yorker. Thus the demand will increase still further.

Today you can't call a refrigerator really modern unless it's equipped with Flexible Rubber Trays or Grids. That's why all leading refrigerator manufacturers use them as standard equipment. And that's why you ought to insist that every refrigerator you sell be equipped with them.

Write to the manufacturer of your refrigerator—or direct to us—for full details, without cost or obligation.

THE INLAND MANUFACTURING COMPANY, DAYTON, OHIO

Flexible Rubber Trays and Grids

ICE CUBES THE MODERN WAY

ELECTRIC REFRIGERATION NEWS

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The 6 Per Cent Delusion

TODAY the whole question of credit in its various forms and manifestations is a live one. The NRA Consumers' Advisory Board, in particular, is persistently demanding that hire-purchase contracts state truthfully, and in easily understandable terms, just what are the interest rates being charged by the contract. Declares the Board:

"1. Whenever goods are sold on deferred payment, the seller performs two distinct and separate functions: the sale of merchandise, and the extension of credit for which charge is made.

"2. Whenever a charge is made for the extension of credit, this charge, like the price of merchandise, should be stated in terms which make it readily comparable with all other prices for the use of money repayable in monthly installments.

"3. The only accurate way to express the price of the use of money is by a given percentage on a given principal for a given time. Any other method of statement permits juggling with one of the two variables: principal and time.

"4. In installment credit, the outstanding amount of credit declines from month to month. Therefore, the only accurate and outspoken way to express the charge for this type of credit is in terms of a given percentage on the current, unpaid monthly balance."

Rarely, it is true, do people who buy goods on the installment plan know exactly what this credit service is costing them. It seems fair that they should know, although this may be disputed. Those who would take issue with the proposition that the exact cost of financing a time-payment purchase should be made known to the buyer point out that merchandisers have never deemed it proper for customers to know the gross profit on each sale.

One thing that does need clearing up, however, is the 6 per cent myth. It simply isn't in the cards for a retail store to make a profit on time payments when the terms are only 6 per cent. Credit, like merchandise, falls into two broad classes: retail and wholesale. Obviously the cost of extending credit to, taking risks on, and obtaining collections from a large number of small borrowers (retail credit) is much greater than the cost of lending to a single large borrower (wholesale credit).

A charge of 3½ per cent a month on small loans, as recommended by the Russell Sage Foundation, has been found to be close to the bottom limit for profitable lending, and is so recognized by a large number of states. In those states where the legal rate has been set at a lower figure by law, legitimate lenders have been driven out of the business, and borrowers of small amounts must go to pawnbrokers and illegally operating loan sharks (like the "Scooge" of the Andy Gump cartoon strip) from whom they obtain money only at exorbitant rates.

Even the fairly large borrower, the individual or corporation which hires money to be used for production purposes (to meet payrolls and for purchase of materials) is not likely to get a true rate of 6 per cent. Six per cent may be the stated rate of interest, but banks have developed a practice which requires the borrower

to leave a portion of his loan continuously on deposit. Thus, the borrower is paying a rate of interest higher than 6 per cent on the sum actually available for his use.

Banks have practically quit lending at retail and, as a matter of fact, aren't even lending much at wholesale these days. The idea that it is patriotic to put your money in banks, where it may be used for financial rehabilitation of the nation, doesn't carry much weight with many prospective depositors when they discover that they can't borrow money from the very banks in which they are depositors.

The time-payment merchant, then, has become money lender to the public. The small merchant has to pool his money demands with those of other small merchants who have similar time-payment paper on their hands by placing it all in the hands of a finance company. The finance companies, in turn, are faced with the problem of converting long-term (24 months is a common period for payments to run on an electric refrigerator) paper into short-term borrowing. In recent times banks have not been disposed to grant long-term loans, and to obtain the money needed to handle the installment paper they buy, finance companies have frequently been forced to pay one short-term note with money borrowed from another bank, and so on 'round a circle of banks until their short-term borrowing has actually become long-term borrowing.

All over the country small business men are complaining that they cannot obtain loans regardless of their need, the legitimate purpose of their requirements, the amount of property they own or their reputation for meeting obligations in the past. The ordinary householder simply hasn't a chance of getting a loan at a bank for any purpose. The time payment merchant has become, in truth, the community banker as far as effective loans are concerned. It would seem reasonable to suggest that he should rightfully have access to the savings of the small depositor rather than the banker who offers no service to this portion of the public.

Undoubtedly this whole question of time-payment credit is a fit subject for public education. That education might begin with explanations of the reasons why credit at 6 per cent is a delusion, and why it is impossible for lenders to make profitable loans to small borrowers at that rate. A better public understanding of the subject should make things easier for the salesman who has to buck against the accusation of "usury," and it might help still the outcries now being heard in many quarters against present-day merchandising methods.

WHAT OTHERS SAY

Rewards in Applause

IF the legitimate stage really is on the decline, then the theater's loss is industry's gain; and if a handful of instances can establish a principle, then the migration of talent from the boards to the desks is something that ought to be encouraged.

In preparation for this summer's sales conventions, they're dusting off the footlights in company theaters. In June, July, and August, company auditoriums will reverberate with the dialog of dramatic presentations—and some of them will be good.

More of them would be excellent if more of them could be blessed with the professional touch of such men as Ellsworth Gilbert of the general sales staff of the Frigidaire Corp., who has been an actor, a director, and a producer and who also happens to have made a name for himself as a supervisor of sales, and R. B. Ambrose, Frigidaire's manager of retail commercial sales, who trouped in vaudeville.

It was these two men who, in the fires of rehearsal, hammered into finished shape four troupes of Frigidaire actors—troupes that, in 36 key cities in February and March played to 14,361 Frigidaire dealers and salesmen.

And then there's company music, a specialty of Chrysler Motor. On May Day and on a national network that relayed low-wave impulses to Little America, the Chrysler Choir, biggest industrial chorus in the world, sang, "The Lost Chord" and "Song of the Marching Men."

The choir's director is Thomas Lewis. Is it necessary to add that he is Welsh? Well, Welsh he is; and he, too, once did his stuff on the six-a-days.

If this is to go on, we look forward with interest, but with no misgiving, to the time when, as the board of directors summons the sales manager to present him with his bonus, the chairman will open the ceremonies with:

"And now let's give the little boy a great big hand!"

And, prefacing his little speech of thanks, the sales manager will say:

"I got my start with Jessie Bonstelle."—*Printers' Ink*, May 10, 1934.

LETTERS

In Amplification of An Editorial

Commercial Refrigerator Mfg. Co.
1020 E. 59th St., Los Angeles, Calif.

May 15, 1934.

Editor:

I have just finished reading your editorial on the reasons why the average beer seller has not purchased mechanical refrigeration but seemed to prefer ice instead.

Our own experience is somewhat similar. We began making only mechanical coolers but found that 90 per cent of all individuals going into the beer business were men or women who had been partially or totally unemployed and whose funds were limited; in fact, the average man going into the beer business had difficulty in raising a down payment of \$25 besides paying one month's rent on a small place and purchasing the initial order of beer and incidental equipment.

When this trend was evident we switched to ice coolers, but designed and insulated these ice coolers so that they could be changed over to mechanical at practically no cost outside of the coil, compressor, and valve.

These were sold through the ice companies and beer distributors. The ice companies being interested in the sale of ice would accept a low down payment and easy monthly payments. The beer distributors, being interested in the sale of beer would sell, in many cases, on nothing down and 50 cents to \$1 charged extra per barrel of beer.

This permitted a rapid distribution of beer coolers so that within a year's time we had sold in California nearly 3,000 of these coolers.

Other concerns undoubtedly also sold this many with the result that there is approximately 6,000 new potential customers for mechanical refrigeration in the state of California alone.

If this has held true in the balance of the states this means that there are approximately 145,000 potential customers for electric refrigeration in beer parlors alone that were not on the horizon one year ago.

Assuming that the cost of coil, compressor and valve, plus installation amounts to about \$200 per job this means a potential volume from this field alone of \$29,000,000. Even the largest manufacturer of condensing units would be interested in a portion of this volume.

From reports from our dealers and distributors throughout the United States it seems that at least 90 per cent of all beer coolers sold were designed for ice and mechanical only enjoyed about 10 per cent of the beer cooling equipment sold. I do not believe that this is a reflection on the sales ability of the electric refrigerator dealer, but lay this primarily to lack of cash on the part of the average man or woman going into the beer business.

It is surprising how much is being made by beer sellers. Small places, who a year ago, were unable to pay over \$25 down on equipment are coming in and desiring to add more elaborate equipment.

The stories of profits in this business for the first year is surprising and out of all proportion to anticipations. People who had been unemployed and on the county dole, opened small places and were able to net from \$50 per week up to as high as \$500 depending on locations, management, etc.

For this reason I believe that the real volume in beer cooling equipment and fixtures has not even started as yet and can see a very bright future for the electric refrigeration dealer who will go after this business along intensive lines.

Our company is changing over ice equipment to mechanical at an increasing rate and the orders for mechanical equipped coolers from new customers is increasing at a rapid rate. We anticipated that the last half of this year will raise the sales of mechanically refrigerated coolers, as against ice, from 10 per cent of the total to 30 per cent. This will gradually increase and eventually the proportion will be 90 per cent mechanical and 10 per cent ice, thereby reversing present trends.

GEO. R. LINDAHL.

Wonderful Assistance

S. W. Sorenson
319 S. 23rd St., Allentown, Pa.

May 17, 1934.

Editor:

I'm sure I couldn't get along very well without your paper and the wonderful assistance the information published offers.

S. W. SORENSEN.

Interpreting the Nema Statistics

E. I. du Pont de Nemours & Co., Inc.
Finishes Division
Wilmington, Del.

Editor:

We have been trying to gather some data from the monthly statistics you publish in ELECTRIC REFRIGERATION NEWS on the monthly production of household refrigerators by Nema members. It is our intention to compare the number of household cabinet manufactured each month with our sales of finishes to the refrigeration industry during the same month.

There is some confusion in our minds as to just which figure in your statistics is the one to use to give us the best comparison. In the production statistics in your May 2 issue, you showed 43,597 lacquer cabinets manufactured by Nema members. In lines 20, 22, and 23 you showed additional figures on cabinets other than the regular household models which were manufactured. Because of our lack of knowledge of just what the descriptive terms on these other lines mean, we are not sure whether we should add the figures shown on these lines to the 43,597, for the purpose we have in mind.

We would greatly appreciate your advice as to which figure you feel would be the most representative one to use for the purpose described in the first paragraph.

H. E. LACKKEY,

Answer: The total of production figures shown on lines 9, 17, and 23 of the Nema monthly report should offer the most logical figure for comparison with finish sales as this total gives production of all cabinets both with and without systems. Line 9 gives lacquer-exterior cabinets complete with high sides and low sides, line 17 shows porcelain-exterior cabinets complete with high sides and low sides, and line 23 shows cabinets without either high sides or low sides.

Nope, We Cherish No Favorites

Sealey & Silk, Inc.
218 28th St., Newport News, Va.

May 12, 1934.

Editor:

While we may be prejudiced in view of our 100 per cent Frigidaire organization, we all feel that your publication favors General Electric and Westinghouse. In view of the fact that there are a million more Frigidaires in use than any other make, it would seem that the greater part of your readers would be most interested in Frigidaire.

R. SLK, JR.,
Secretary-treasurer.

He Didn't Think It Was Funny

Electric Appliance Co.
1107 Garrison Ave.
Fort Smith, Ark.

May 14, 1934.

Editor:

We notice in your copy of May 2, on page 28, a wonderful advertisement on refrigeration.

It may look like a smart thing to your editor to publish such a picture, but we are under the impression that this magazine is put out for the good of the industry. Pictures of this kind certainly do not help the industry, and gets the public worried about all refrigeration companies. Some salesmen use this picture to show their customers thinking they are bettering themselves but we find it only makes the customer dubious about all refrigeration companies.

We appreciate your magazine and hope in the future that you will make it a business magazine instead of a comic strip. Or rather keep the comics out.

J. F. McGEEHEE.

Demonstration Helps

The Borden Co.
350 Madison Ave., New York City

May 10, 1934.

Editor:

I would like to have two copies of the April 25 issue of ELECTRIC REFRIGERATION NEWS containing the story of our "Demonstration Helps" frozen dessert issue. Please send me a bill for them.

ELECTRIC REFRIGERATION NEWS is very interesting to us.

HELEN E. KIMBALL,

Food service dept.

Editor:

I desire to thank you for the courtesy extended to me during my recent visit to Detroit, and I trust that I shall have the pleasure of renewing your acquaintance in the future, preferably in Australia.

R. J. W. KENNELL,

Mechanical Products, Limited,

Adelaide, Australia.

Yes Sir, We'd Enjoy That Little Trip

Hotel Governor Clinton
New York City

Leila

Editor:

COMPANION MERCHANDISE

G-E Designs Radio For 32-Volt Current

SCHENECTADY, N. Y.—A radio receiver designed for use in rural and farm homes where only a 32-volt direct-current supply is available, has been announced by the merchandise department of the General Electric Co.

Not only is the receiver applicable on farms and in summer camps having their own electric systems, but it is also for use on boats having similar electric systems.

The new receiver, designated as model C-67, is in a full-sized, six-legged cabinet of early English design. Of walnut veneer, it has a hand-rubbed wax finish, and the matched walnut control panel is recessed and capped with a light arch of zebra wood.

The dual tuning range includes the 540 to 1,500 kilocycles standard broadcast band, and the 1,400 to 2,800 kilocycles police, amateur, and aircraft bands.

It is a six-tube superheterodyne set, giving nine-tube performance. The tube complement consists of two type 6D6 RF and IF amplifiers, one type 6A7 first detector and oscillator, one type 6B7 second detector and first audio stage and AVC, one type 37 power output, and one type 84 rectifier.

It operates entirely from the 32-volt battery; "B" battery voltage is supplied by a special design factory-sealed vibrator in combination with the type 84 rectifier tube, and no soldering is required to replace the vibrator. A seventh tube, known as a "ballast" tube, maintains constant line voltage to insure long life and best operation from all tubes.

The chassis and power supply are mounted in two separate units, making the set convenient for servicing.

United Motors Service to Handle Installation of Crosley Auto Radio

CINCINNATI—Crosley radio dealers will no longer have to bear the burden of installing the Crosley "Roamio" auto radio, as all installations will be made by United Motors Service stations or by other service stations properly designated and authorized by Crosley Radio Corp., it was announced recently.

A certificate contained in an envelope will be attached to the carton of every Crosley "Roamio." This certificate will indicate that it is exchangeable for the installation of the Crosley auto radio contained in the carton, in any make of car.

Henceforth the Crosley "Roamio" will be advertised for sale completely installed at \$39.95. Upon completion of the work the installation station obtains the signature of the customer and presents it to the dealer for the three dollars collected in advance by the dealer from the customer.

Electric Cookery in Hollywood



Leila Hyams, petite film star and wife of Phil Berg, the producer, does her cooking on a Standard electric range.

'Dual Speed' Features New Westinghouse Vacuum Sweeper

EAST PITTSBURGH, Pa.—A new vacuum sweeper featuring a "dual speed" non-radio interfering motor with lifetime lubrication, and weighing 14 lbs. has been introduced by the Westinghouse Electric & Mfg. Co.

With the "dual speed," high speed can be used for cleaning once a week to remove deeply embedded dirt, and the low speed the rest of the week to pick up surface dirt, ravelings, etc. This method of cleaning is said to offer a saving in time and electricity since low speed uses less current.

The non-radio interfering motor is fan cooled and has been sealed in lubrication sufficient for the average life of the cleaner. The aluminum motor housing is but 6½ in. high, so that low, difficult places may be more easily cleaned.

The new cleaner has an extra wide nozzle of 14 in. A positive handle-locking and tilting device makes the cleaning process easier for the user, as toe or foot pressure on the handle engages the tilting notch automatically so that the nozzle rises to go over thresholds or onto rugs.

A moleskin bag, with a new spring type top that opens automatically when the clamp is removed from the bag top, holds the dust within the bag and filters the air.

Westinghouse Designs New Type Electric Fan

MANSFIELD—The Master-Aire, a fan of entirely new design, has been introduced by Westinghouse Electric & Mfg. Co.

This new fan is built in 12-in. and 16-in. sizes and embodies an economical capacitor-type motor.

Increased efficiency built into the Master-Aire is due to the application of the capacitor or condenser. This part is really a section of the motor mounted in the fan base, below the switch.

A transformer is placed above the switch to step up the voltage on the capacitor, making it effective in producing an even flow of current.

In addition to the new motor design these fans have newly designed, electrically welded guards with graceful lines and heavier construction. The Master-Aire fans also use the Westinghouse patented, oscillating mechanism and micarta blades.

Standard Issues Manual On Electric Cookery

TOLEDO—The Standard Electric Stove Co.'s 1934 sales manual, containing 32 pages of information about electric cookery, is now ready for distribution, according to M. E. Gelow of the Standard Co.'s sales department.

Stewart-Warner's Auto Radio



CHICAGO—Just introduced by Stewart-Warner Corp., manufacturer of Stewart-Warner refrigerators and radios, is a new automobile radio model.

Principal features listed for the new model include sensitivity less than one microvolt, power output more than three watts, local-distance switch to eliminate interstation noise where interference is bad, tone control continuously variable, vibrator type "B" supply, plugs into position like a radio tube, gang condenser mounted below set which eliminates all microphonic pick up.

The remote control head is of the speedometer type with indirect lighting. It can be mounted on steering post or instrument panel and includes volume-control regulated by a switch in combination with switch lock. The 6-in. electro-dynamic speaker is connected to the set with a plug-in cord and is fastened to the front plate of the cabinet.

The 3-in. "stud mounting" insures rigid installation of the cabinet in any one of three mounting positions. A short, convenient connection to the ammeter eliminates the need for battery connection.

The all-steel cabinet has a black crackle finish and ornamental speaker grille. It measures 7½ in. high, 7½ in. deep and 10¼ in. wide.

Ryan Oil Burner Built For Stoves & Furnaces

CADILLAC, Mich.—John F. Ryan of this city has recently introduced a new oil burner designed especially for use in cook stoves, heating stoves and furnaces.

Four models are included in the Ryan line of natural draft gravity feed burners.

Feature of the Ryan burner is that when in operation air enters the firepot through a series of round openings in the side. Air also passes upwardly between the skirt of the hood and the firepot and through the grooves in the underside of the top of the plate and between the top of the plate and the top of the hood.

In this way, air is added to the burning gases as they pass upwardly so as to cause more combustion and increase the heating capacity of the burner.

Pollock Is Representative For Permutit

NEW YORK CITY—Oliver P. Harris, sales manager for the Permutit Co., manufacturer of water softeners, has announced the appointment of D. L. Pollock as factory representative in the Michigan and Ohio territory.

N. Y. Toridheet Operation Headed by 'Con' Eakin

NEW YORK CITY—C. M. "Con" Eakin, formerly head of the Frigid-air sales branch of New York City, has opened offices and showrooms at 14 W. 40th St. for the sale of Toridheet oil burners and accessories.

The new company will operate under the name of Petroleum Utilities Corp., and Mr. Eakin is president.

So frequently is it said by those who

know the merits of various electrical

refrigeration units: "You make no mis-

take when you buy a Universal Cooler."

Which is merely another way of saying

that no units give more outstanding or

dependable performance.



UNIVERSAL COOLER CORPORATION
DETROIT, MICHIGAN

BRANTFORD, ONTARIO

MANUFACTURERS OF A COMPLETE LINE OF HOUSEHOLD AND COMMERCIAL REFRIGERATION EQUIPMENT

SERVICE

Nome Employs 10 Men in Servicing and Re-building Electric Refrigerators

By Phil B. Redeker

DETROIT—Nome Refrigerator Co., local refrigerator retailing establishment which handles Crosley, Frigidaire, Gibson, Grunow, and Leonard makes, as well as re-conditioned models under its own name, has an independent service operation in which 10 men are employed, and which forms one of the most profitable divisions of its business.

Of the 10 men working under the direction of James Haviland, service manager, six are employed on outside work and four in the machine shop.

In the machine shop compressors and various parts and fittings are rebuilt and re-conditioned.

"Compressor re-building is one of the major parts of our service business," Mr. Haviland declares. "We can re-build and re-install a compressor for about \$10 and make a profit, whereas a new compressor will cost from \$16 to \$20, at least. We get a lot of business from old users this way."

The machine shop outlay for a re-building setup is not as expensive as might be imagined, Mr. Haviland points out. Simple machining equipment, micrometers, and work-bench tools are all the equipment needed.

"We do not repair or re-build motors, however," Mr. Haviland declared. "We have found firms who specialize in this work who can do a

better, faster, and cheaper job than we can."

Part of Nome's service work is on a "contract" basis whereby the rental agency or factory contracts to have Nome do all service work on any of its properties equipped with electric refrigeration.

"For a while we handled such business on the basis of periodic calls or check-ups, but we find this no longer necessary, especially since refrigerator motors have been improved," Mr. Haviland declares. "It is now handled on a call-by-call basis."

Service Multiple Installations

Much of the service work done by Nome is on multiple installations for apartment houses. Experienced service men are best for this type of work, Mr. Haviland declares, because the "old time" multiple installations had a number of features which are no longer used and are not even discussed in service manuals.

"The oldtime service man can listen to any one of the 'boilers' (evaporators) hooked up to a multiple system and can tell whether or not it is taking enough gas or whether the gas is blowing through too fast. This enables him to check up on the operation of the refrigerant control."

Many times evaporators in multiple systems become "oil bound." The oil

carries through with the liquid and in most cases it is the evaporator in the top floor, where the pressure is lowest and not enough to carry the oil "through," that the plugged up condition occurs, Nome's service manager declares.

According to Mr. Haviland, 80 per cent of service calls can be handled on the premise if the service man has proper tools. Nome service men carry gauges, wrenches, belts, gaskets, and charges of various kinds of refrigerants.

Majority of service complaints received by Nome are, of course, that the user isn't getting refrigeration with his machine. If the motor is operating, the Nome service men test first to see if there is a leak, second to see if the expansion valve or float control is out of adjustment.

By using gauges, the service men are able to determine if there is a leak in the system and if there is, they pull a vacuum and determine which part of the system is leaking.

If there is no leak the expansion valve or float valve is checked. In modern machines these mechanisms have been so simplified that they constitute a minor service problem from the standpoint of repair or adjustment, Mr. Haviland declares.

If the user complains that proper temperatures are not being maintained, service men are instructed to check the controls. In the first models equipped with porcelain evaporators the element fastened to the evaporator wasn't clamped on tight enough, and often gets out of adjustment due to tampering or jarring.

Nome Refrigerator Corp. keeps complete records of its service activity on a card file that is instantly available to any service man who gets a complaint. These service records give the name and address of all users requiring service, the kind of service that was done on each call (this is noted in considerable detail), and the charges made for each call.

Compressor of Wrong Size Will Cause Trouble

LOS ANGELES—Possible troubles that may follow when a compressor of incorrect size or when an incorrect quantity of refrigerant is used for refrigerated display equipment are enumerated in a manual published by the Commercial Refrigerator Mfg. Co. of this city.

If the compressor is too large, it will "short cycle," that is, start and stop frequently. The compressor should be slowed down, or the machine exchanged for one of the proper size.

If the compressor runs almost constantly, it is an indication that the unit is too small. The machine should either be speeded up, or exchanged for the right size. A shortage of the refrigerant, an expansion valve not opened enough, or too small a condenser are other factors which may cause long operating time.

If the coil builds up ice, possible causes are (1) switches are set on too close a range; (2) the compressor may be operating continually; (3) switch settings may be so low that the coil temperature is too low.

When the expansion valve is warm, it is an indication of a shortage of gas or insufficient condensing capacity. The expansion valve should not be warm if the condenser is the right size and is properly cooled, with receiver of the right size and enough refrigerant charged into the system.

If the operating time is not over 16 hours no alarm need be felt, according to this manual. Short operating time is not conducive to the maintenance of proper temperatures and humidities.

Fluctuating temperatures are generally caused by moisture getting into the bellows or the needle point of the expansion valve, although this trouble rarely occurs as present-day valves are practically moisture-proof.

However, if moisture does get in, the solution is to remove the element from the valve without taking the valve off. Then it should be opened up, cleaned out, thoroughly dried, and filled with pure vaseline or glycerine before being replaced, the manual advises.

If this does not correct the condition, moisture has probably entered the system and frozen at the needle point of the valve. To correct this condition a calcium dryer should be installed on the liquid line near the receiver and left on for 48 hours.

If the receiver or condenser become too warm it usually means that the condenser is too small or that it isn't being cooled properly.

Servel Distributor Holds Service School

SYRACUSE, N. Y.—A two-weeks combination sales and service school devoted to new products was recently sponsored by the Haverly Electric Co., Servel distributor here, for its dealers.

Carl Olin, Servel factory service manager, was in charge of the two-weeks session, first week of which was devoted to installation and service of Servel commercial refrigeration, air-conditioning and milk-cooling equipment.

The general program, in which Danner Bierhaus, factory district sales representative, and A. M. Schmitz, factory district service representative, assisted, covered a thorough explanation of the products from both a sales and service angle.

Mr. Olin spent part of last month at the Servel branch in Cleveland, assisting with plans for re-organization and education of the service organization there.

Penn Electric Employment Reaches New Peak

DES MOINES, Iowa—Penn Electric Switch Co., manufacturer of controls for household and commercial electric refrigeration equipment, is now employing more men than ever before in its history, according to Nelson B. Delavan, sales manager.

A night shift is now being worked at the plant here and sales are considerably ahead of the similar period for last year, according to Mr. Delavan.

Independent Service Man Prefers Working With Popular Makes

CLEVELAND—K. P. Wall, proprietor of the Wall Refrigeration Co. on St. Clair Ave. here, tries to confine his service calls to standard makes of refrigerators because parts are easier to get and because there are fewer tricky adjustments to be made than on some of the orphan refrigerators.

There are a good many orphan makes of household refrigerators operating in Cleveland, according to Mr. Wall. These include Lorain, Superior, Rice, Welzbach, etc. and one or two present manufacturers who have abandoned Cleveland offices. When a service call comes in for an ethyl chloride machine, Mr. Wall usually turns it down because that refrigerator is hard to buy in Cleveland in small quantities.

He likes to handle Frigidaire, Kelvinator, and Universal Cooler machines, particularly Frigidaire. His preference for that make is probably explained by his background of experience with Deleo-Light when that company built Frigidaires, and later with the Frigidaire organization itself.

As a matter of fact the independent service business has never approached large proportions here, most Clevelanders calling on the local distributor for service on their refrigerators. As a result, Mr. Wall has built up a going business in second-hand refrigerators, and finds it fairly profitable, particularly with commercial machines.

Attracted by Parts Business

He is also attracted to the parts supply business, and plans to abandon the service business completely within the next few months and establish himself as a source of supply on parts for standard makes, selling them to the numerous Cleveland service men who work out of their homes.

Local ice cream manufacturers furnished their customers with ice cream cabinets and service for them until 15 months ago, Mr. Wall states, but since that time they have given up the provision of ice cream cabinets, so most of the service business now goes to distributors representing the ice cream cabinet manufacturer.

On the same premises with Mr. Wall's company is the East Cleveland Electric Motor Service Co. offering motor repair service on all makes of small motors. This has been a handy arrangement for both companies, Mr. Wall using the lathe and grinder which belong to the motor company, and the latter using his drill press and other shop equipment.

Two seasons ago Mr. Wall tried merchandising electric refrigerators, but found that it didn't work well with the independent service business. Low down payments and the competition of coin meter buying were cited as his main objections to merchandising.

Davis Joins Export Staff of Servel

NEW YORK CITY—R. E. Davis, formerly Servel factory district service representative, has been transferred to the Servel export department. He is now in London. He will handle Servel distribution in England and on the Continent.

REFRIGERATOR DISPLAY

Fruits, Vegetables, Meats, Fowl, etc. Durable composition, very realistic.

Introductory offer 22 pieces \$4.25

Roman Art Co., Inc.

2700-6 Locust Blvd.

St. Louis, Mo.

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Servel Inaugurates Service Program

EVANSVILLE, Ind.—A new plan of service education for Servel dealers and their service men has evolved from results obtained at a master school conducted recently at the Servel factory here.

Primarily designed to make each area self-supporting unit in all phases of operation, it is hoped that through this program, dealers and dealer service men will also become self-sufficient entities.

A three-day program, which will be conducted all over the country for distributors in headquarter cities, covers instruction in all phases of operation, installation, and service of Servel's standard commercial line, new air-conditioning equipment, and allied products. Each school is directly in charge of the factory district service representative, assisted by the factory district sales representative.

First of the series was held last month in Springfield, Ill., and directed by Carl Olin, factory service manager. It was attended by 15 service men from the Capital City Paper Co., Servel distributor in Springfield. Morris I. Benson, factory district service representative in charge of the school, was assisted by C. R. Porter, factory district sales representative.

The master factory school, under the direction of Mr. Olin, which is intended especially for sales managers, and as a "finishing" school for installation and service engineers from various distributor organizations, will be continued in its present form. If the plan for the three-day "elementary" school works out as expected, however, it is intended to add more extensive courses, in advanced schools, for each area.

Immediately following the Springfield session, Mr. Benson, assisted by Mr. Porter, conducted a similar school for the Illinois Power & Light Co., Servel distributor in Decatur, Ill.

Kelvinator Service Dept. Moved to Old Fort Street Plant

DETROIT—With employment at a higher mark than ever before and its factories operating at full capacity, Kelvinator Corp. has had to move its entire factory service department back to the plant at 2051 W. Fort St. here, which the company left in 1927.

The property was called back into service to make room at the Detroit plant on Plymouth Road for offices and other departments which have been expanded.

Installation of new production equipment, including nearly a mile of additional conveyor track on assembly and inspection lines, has been completed at the Plymouth Road plant. Inspection facilities have also been expanded, as have operations at the company's cabinet plant in Grand Rapids, Mich.

Service Men Granted 2 Code Exceptions

LOS ANGELES—Registered Refrigeration Contractors (service men) have petitioned for and gained certain exemptions under the new Los Angeles electrical ordinance.

Amendments to the ordinance allow refrigeration contractors to do the following work without electrical permits:

1. Connect, repair, remove, and replace motors which are a portion of any unit refrigerator or refrigerating system as defined in section 230 of the building ordinance.

2. Connect, repair, reconstruct, and replace electrically controlled switches which are a portion of any such unit refrigerator or refrigerating system.

Mueller Ends Agreement With Electric Auto-Lite

PORT HURON, Mich.—Mueller Brass Co. has cancelled the working agreement which had existed with Electric Auto-Lite Co. of Toledo for the past two years, according to a statement made last week by O. B. Mueller, president.

"Electric Auto-Lite will have no interest in our company and will have no further connection with our operations," Mr. Mueller declared.

Oklahoma Dealers Hear Servel Commercial Plans

TULSA, Okla.—At a three-day sales conference held here recently for dealers of the Harbour-Longmire Co. of Oklahoma City, Servel distributor, final plans were made for promotion of commercial refrigeration and air-conditioning sales.

Twenty-five dealers attended the sales conference, which was arranged by H. M. Severns, sales supervisor for Harbour-Longmire. Program was conducted by R. F. Wheeler, Servel factory district sales representative.

Spray Painting Code Authority Named

CLEVELAND—Six members were elected to the code authority for administering the recently approved spray painting and finishing equipment manufacturing code at a meeting of the spray painting and finishing equipment manufacturing industry held at the Hotel Cleveland, here.

The six members elected are: W. F. Gradolph, DeVilbiss Co., Toledo; H. W. Beach, Eclipse Airbrush Co., Inc., Newark, N. J.; W. B. Thompson, Sprayco, Inc., Sommerville, Mass.; J. F. Roche, Binks Mfg. Co., Chicago; J. A. Paasche, Paasche Airbrush Co., Chicago; and S. Deutsch, Electric Sprayit Co., South Bend, Ind.

Code Now Effective

TOLEDO—W. J. Pitt, secretary of the National Spray Painting and Finishing Association, announces that the code of fair competition for the spray painting and finishing equipment industry has been approved by the National Recovery Administration. It went into effect April 30.

The code sets a maximum 40-

Busy Acknowledging Orders



George L. Brunner (left), president, and Harry Pendergast, general manager of Brunner Mfg. Co., snapped at their desks by a News reporter.

hour week and eight-hour day for factory employees.

Overtime during special periods and with limitations is also specified in the code. Minimum wages for factory employees are set at 40 cents per hour for men, at 35 cents per hour for women.

In regard to selling methods, the code authority is authorized to estab-

lish uniform principles of cost accounting subject to approval by the Administration. Likewise, prices, discounts, etc. will be filed with the code authority subject to revision on five days notice. Unfair trade practices, such as false advertising, misbranding, commercial bribery, secret rebates, "free deals," sales below cost, etc. are prohibited.

Henry Moves to G-E Schenectady Offices

SCHEONECTADY—W. H. Henry, manager of sales of the fractional horsepower motor section of the motor division of the industrial department, General Electric Co., is now located at the general office in Schenectady. He will assist C. F. Pittman in the administrative work of the motor division.

A. W. Bartling has been appointed assistant manager of sales, fractional horsepower motor section of the motor division, with headquarters at Fort Wayne, Ind.

P. O. Noble has been appointed engineer of the fractional horsepower motor engineering department, and A. F. Welch appointed consulting engineer of that department.

New Type of Packing Rings Is Introduced

PITTSBURGH—John B. Walker, president of the American Metallic Packing Co., announces development of a new packing ring made of a special grade of close-grained cast iron.

ADD thousands of rural homes TO YOUR MARKET

• Thousands of homes in your territory, without electric power, have long wanted modern, mechanical refrigeration. Now you can give them a gasoline-powered refrigerator that challenges any other refrigerator made in performance and economy—or a complete, portable, home Ice Maker—or the Waukesha Milk Cooler for dairymen, the best steady-income farm buyers in your territory. A new field, and a new line that is definitely non-competitive.

The Ice Maker and Milk Cooler are powered either with the Waukesha Gasoline Ice Engine, or the Waukesha Electric Ice Motor. The Refrigerator is powered only with the Gasoline Ice Engine.

Add this big-volume, rural market to your city trade. These nationally advertised products are built by the Waukesha Motor Company, the world's largest builders of heavy-duty gasoline engines for agricultural and industrial purposes.

THE WAUKESHA GASOLINE-POWERED REFRIGERATOR

Costs an average of only two cents a day for fuel. One or two hours' operation once a day maintains a temperature of 50° F. or colder, for a twenty-four hour period—even in the hottest weather. The Waukesha Gasoline Ice Engine is mounted on live rubber, in a sound-silenced chamber at the

base of refrigerator—runs smoothly, quietly, without vibration. Cabinet is of advanced construction with chromium-plated hardware. Has 14 square feet of shelf area—a large and a small freezing chamber, and trays for 63 ice cubes.

THE WAUKESHA ICE MAKER

One gallon of gasoline makes one hundred pounds of pure, healthful ice for ice-box service and all other home uses. Freezes fifty pounds, in four convenient-size cakes, all in about four hours. Has capacity to freeze enough ice for three average families or for summer homes, resorts, camps, etc. Powered with the Waukesha Gasoline Ice Engine or the Waukesha Electric Ice Motor. Neat, modern, sturdy cabinet, well insulated. "Cold Cans," charged with a special freezing solution, and sealed, may be substituted for the ice trays if desired.

THE WAUKESHA MILK COOLER

Dairymen will appreciate the superior convenience, efficiency and economy of this modern Milk Cooler. Powered with either the Waukesha Gasoline Ice Engine or the Waukesha Automatic Electric Ice Motor. More dependable and cheaper than ice. It is simple and easy to operate. It meets the most rigid specifications for modern milk cooling requirements. It is

"package merchandise"—a complete, compact unit—comes ready to set into tank and operate. Adjustable to fit varying heights of tanks, and up to 6-can capacity. The unit replaces one can.

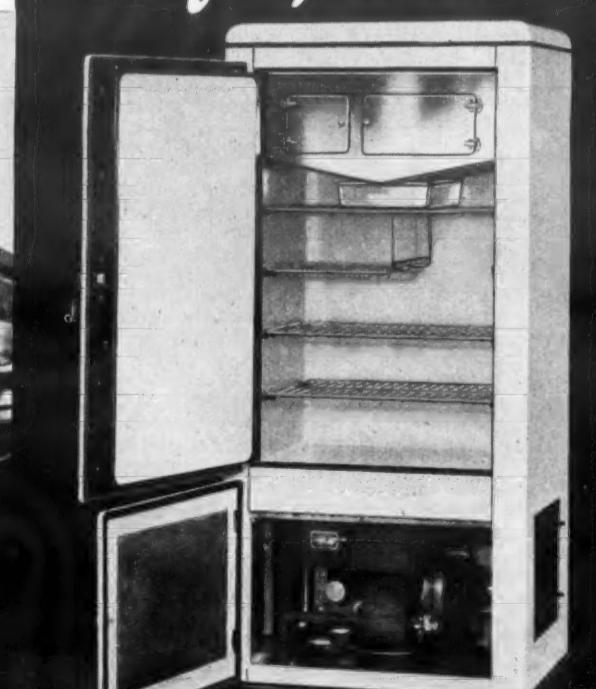
FASTER, MORE SANITARY COOLING

It is the only milk cooler with power-driven, directional water agitator. Cools cans in all parts of the tank with equal rapidity. Thermal action stirs the milk without opening cans—without using insanitary stirring utensils—excludes bacteria. Will perform in any standard insulated tank, but superior results are obtained by using Waukesha-built tanks, designed for proper balance between cooling unit's capacity, amount of water, and the insulation.

THE WAUKESHA ICE ENGINE

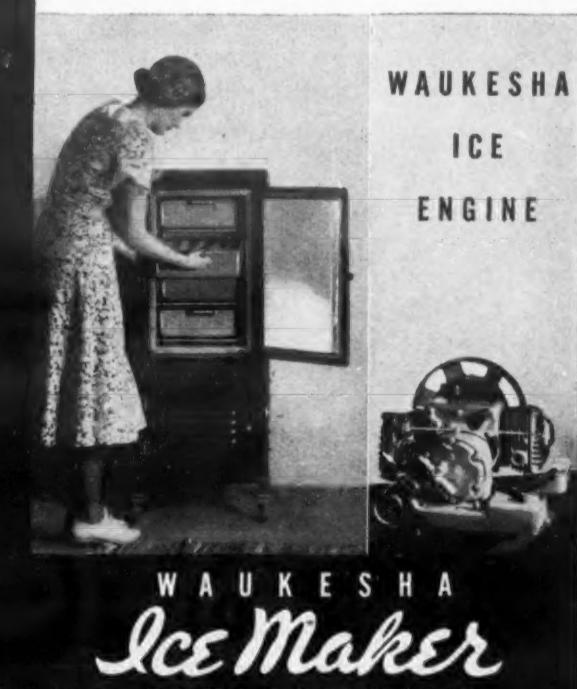
A modern refrigerating compressor, and an air-cooled, four-cycle, gasoline engine in one compact unit. Precision-built by master engineers—sturdy and reliable. The Waukesha Electric Ice Motor has the same type compressor, combined in one unit with a standard electric motor.

• • • • •
A number of valuable dealer and distributor territories are still open. Write or wire today for full details.



WAUKESHA GASOLINE POWERED Refrigerator

WAUKESHA
Milk Cooler
POWERED WITH
GASOLINE OR ELECTRICITY



WAUKESHA ICE ENGINE

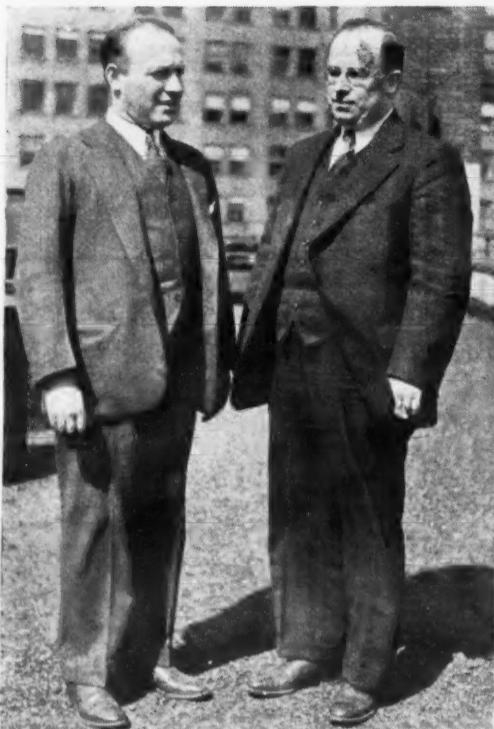
WAUKESHA
Ice Maker
POWERED WITH
GASOLINE OR ELECTRICITY

WAUKESHA MOTOR COMPANY

DEPT. N-5, WAUKESHA, WIS.

Executives of the Porcelain Enamel Industry Meet in Cleveland To Discuss Methods of Popularizing Porcelain

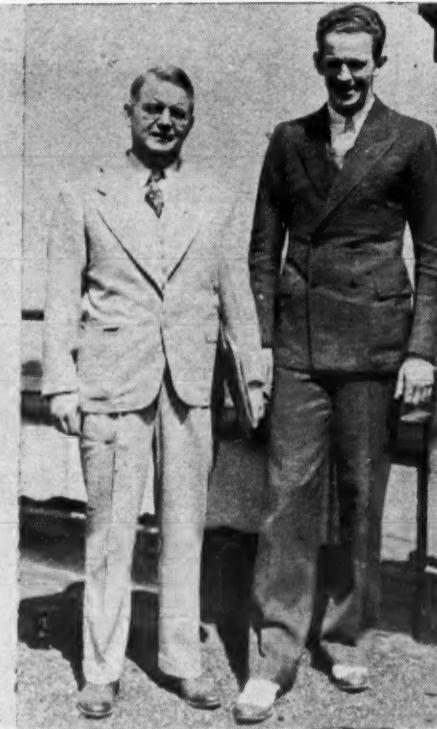
(See Report Starting on Page 1 and Continued on Opposite Page.)



Atop the Cleveland Statler, M. J. Saltzam of Porcelain Metals, Inc., in New York City, and J. H. E. McMillan, Ingram-Richardson Mfg. Co., Beaver Falls, Pa.



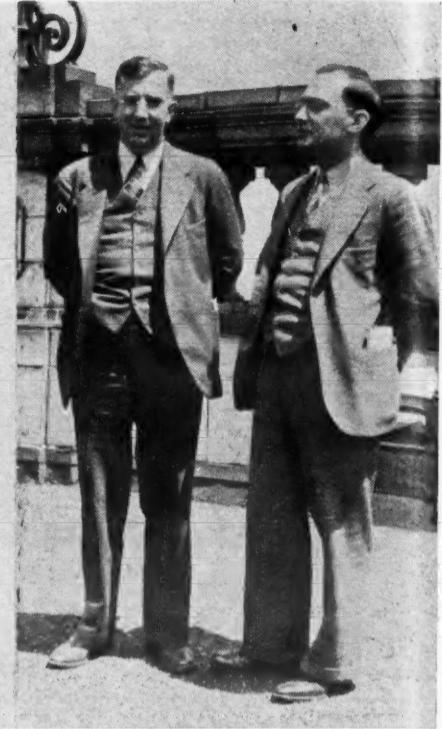
Reelected vice president of the institute—F. E. Hodek, Jr., Porcelain Enameling & Mfg. Co., Chicago



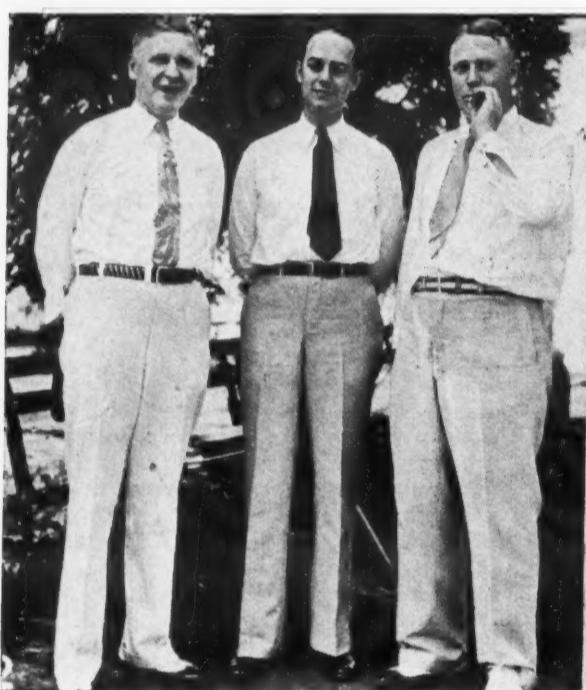
R. A. Weaver, Ferro president, with H. E. Winters, who is designing decorative effects for Ferro's exhibit at A Century of Progress.



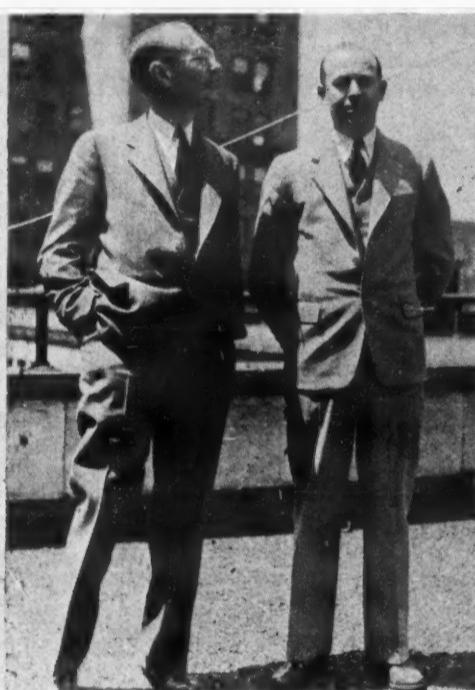
Louise Gatterdam, secretary to Secretary George MacKnight of the Porcelain Enamel Institute.



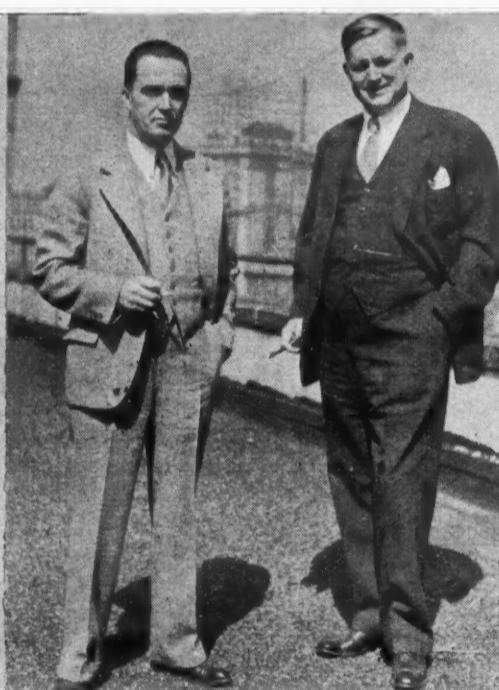
Representing Baltimore's Porcelain Enameling & Mfg. Co. at the Porcelain Enamel Institute meeting were W. R. Greer (left) and R. H. Turk.



Head men of the institute—Treasurer William Hogenson, Chicago; Secretary George MacKnight; and President R. W. Staud, Chicago.



Earle S. Smith, president of the Toledo Porcelain Enamel Products Co., and E. L. Adams of the same firm.



Two steel men: Parker H. Van Pelt (left), American Sheet & Tin Plate Co., Pittsburgh; and Bennett Chapple of Armco.



During an intermission—R. F. White of Mullins Mfg. Co. (left), and A. Trenkamp, Cleveland Enameling & Mfg. Co.

—Pictures by H. Dana Chase.

Bonnets and Caps in This Business?

Yes. We have them. Sealing Caps, Flared Tube Bonnets, Plugs; Nuts, Elbows and Tees . . . every type of fitting for the industry.

For years Commonwealth has specialized on the production, in quantities, of seepage-proof fittings. All Elbows, Tees and Crosses are produced from Hot Brass Forgings; resulting in a close-grained metal structure of exceptional density.

Our list of standard fittings includes many hundreds of tube and pipe connections. In addition, our facilities enable us to ship almost any wanted tube and pipe end combination on very short notice.

Special type fittings made to sample, blue print or sketch.

Quotations promptly

Commonwealth Brass Corporation
Commonwealth at G.T.R.R.
Detroit, Mich.



Temprite Prepares Products Catalog

DETROIT—Prepared for prospective buyers of beer- and water-cooling equipment is a new 28-page handbook issued by the Temprite Products Corp. of this city. It combines the qualities of a presentation manual and a catalog to give readers complete information on how Temprite coolers operate, and in what sizes and forms they are made.

First comes an explanation of Temprite's principal of operation—instantaneous cooling by submergence of coils in liquid refrigerant, then a discussion of the four most common types of installation, the multiple, circulating, dead end, and self-contained systems.

Illustrations and specifications on Temprite fixtures and water-cooling units designed especially for multiple installation comprise the next part of the book, followed by data on cooling units for circulating systems. Self-contained coolers for industrial application, cabinet coolers for eating establishments, and industrial coolers for remote applications are also pictured and discussed.

After a double-page spread of pictures showing buildings in which Temprites serve a variety of uses, the book turns to the subject of beer cooling, points out features of Temprite's adaptability for this purpose. Two pages of information on available beer- and beverage-cooling units follow.

Last part of the book contains technical information on how to estimate the amount of cooling required and the Temprite models needed to take care of a given amount of water cooling. Also given are load tables and application data, dimensions of Temprite models, and amount of refrigerant and oil charges in various units.

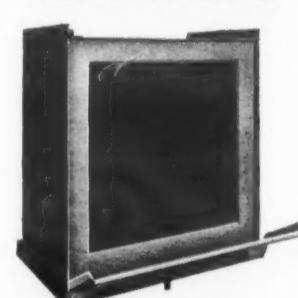
Strelinger & Mitchell Cover 50,000 Miles

DETROIT—Godfrey Strelinger, sales manager of Leonard Refrigerator Co., and Sam C. Mitchell, Leon-

ard advertising manager, covered more than 50,000 miles during the two months they recently spent in visiting distributor points in all sections of the country.

Forty dealer meetings, with attendances aggregating approximately 5,000, were addressed by the two officials.

KRAMER



TURBOFIN UNIT COOLER

Overnight express delivery to all points as far west as Chicago, Ill.

A Versatile Unit—for Brine, Water and direct expansion systems. Coil construction, all copper hot tin dipped. Shell construction all brass finished in dark green Dulux. Made in 5 sizes, 20 to 80 lb. hourly I.M.E. capacities.

Kramer Refrigeration Products

Turbofin Unit Coolers
Commercial Evaporators
Domestic Evaporators
Condensers
Bottled Beer Cooling Coils
Ice Cube Makers
Shelf Evaporators
KX Case Evaporators
Junior KX Case Evaporators

TRENTON AUTO RADIATOR WORKS

Main Offices and Factory, TRENTON, NEW JERSEY
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Enameling Plan Program of Education on Porcelain

(Concluded from Page 1, Column 1) which porcelain is applied. Porcelain is the standard finish for most kitchen ranges, it developed, because of the necessity for resistance to heat. Porcelain has also "held its own" fairly well for washing machines, it appears.

But refrigerator manufacturers have turned a willing ear to proposals of lacquer producers and developers of special organic finishes such as Dulux, with the result that most household electric refrigerators now built are not finished in porcelain. Because the refrigeration industry is still in the expansion stage, the porcelain producers assembled here were keen about any proposition which would promote their product in refrigeration.

Improved Porcelains

That the porcelain enamels now produced by the industry are considerably improved over those of a few years ago was evident at the sessions. Chief improvements are in acid-resistance and elimination of cracking of the finish from warping of the metal on which it is applied.

The industry has developed porcelains which are resistant to every acid except hydrofluoric (which attacks even glass), the porcelain engineers contend. One of the worst common acids to combat was that in blackberry and other fruit juices. Another was the lactic acid produced by souring milk. These acid-resistant finishes are now standard for food compartment liners of many household refrigerators.

Warping of metal (and consequent cracking of the finish) in the high temperatures of a porcelain enameling oven has gradually been solved by improved enameling iron and porcelains which can be applied at lower temperatures.

This problem is typified by the difficulty which faced the engineers who tried to apply porcelain to General Electric's cabinet several years ago when it was first introduced. The sheet steel front of the cabinet (around the door) was stamped in one piece, unlike previous refrigerator cabinets which had three-piece fronts, and when the G-E cabinet front was subjected to enameling temperatures it warped and the porcelain cracked. Present-day enameling practices would do the job nicely, the porcelain people declare.

Elimination of this warping is now possible because the large steel companies have developed enameling stock in which adherence and fusion of the porcelain into the steel is accomplished at lower temperatures, and because enameling oven temperatures have been reduced with the development of new porcelain materials.

Reduced Baking Temperatures

Formerly, the grit coat of porcelain was baked on at temperatures between 1,600° and 1,700° F., while it is now applied between 1,520° and 1,550° F. The finish coat, which formerly required from 1,580° to 1,620° F. can now be applied between 1,420° and 1,440° F., the porcelain technicians explain.

"Three years ago we had almost no means of testing colors," they say. "Today we can produce whites with no semblance of gray, and no lack of hiding power."

"We can also produce whites tending toward any one of the three leading component colors—green, red, and blue. Formerly, two adjoining parts of a refrigerator were apt to tend toward different color components. Now we can produce a refrigerator cabinet consisting of eight exterior parts, all enameled at different times, which match in color tendencies," they declare.

The meeting was called to order Wednesday morning by Mr. Staud, president of the institute and chairman of the temporary supplementary code authority for the porcelain industry. Considering operation of the institute's supplementary code, he classified its purposes as:

First, restoration of employment; second, provision for the consideration of price structures; third, establishment of fair trade practices for the protection of both manufacturers and customers; and fourth, operation and administration of the code.

He stressed the voluntary aspects of the code, explaining that it was submitted by a representative group within the industry, and that its success depends upon voluntary compliance.

"We should be willing to forego, at least temporarily, some of our individual advantages for the good of the group. We have more to gain through competing with other finishes than through competition among ourselves," he said. "We must cease dissipating our energies in price competition, and expand the market for our industry's products."

Following these remarks, there was some discussion about provisions of the code, one question being raised about operation of one company under more than one code authority.

An unofficial interpretation of this question was offered by R. A. Stevens, assistant deputy administrator of the NRA who attended the sessions. Mr. Stevens said the policy thus far has been to permit those companies whose operations are definitely departmentalized to work under labor provisions of the code according to departments.

"Companies whose operations are not definitely departmentalized should be maintained under the code covering that phase of their business which is most important from the standpoint of volume." He also opined that the best policy is to work under code provisions which are most favorable to labor.

Members of Code Authority

Next, the following were elected as members of the code authority for administration of the Porcelain Enameling Manufacturing Industry's Supplementary Code:

R. W. Staud of Benjamin Electric Mfg. Co.; E. S. Smith, president of the Toledo Porcelain Enamel Products Co.; F. E. Hodek, Jr., vice president of the General Porcelain Enameling & Mfg. Co., Chicago; William Hogenson, president of the Chicago Vitreous Enamel Products Co., Chicago; Louis Ingram, president of Ingram-Richardson Mfg. Co., Beaver Falls, Pa.; G. S. Blome, vice president of the Baltimore Enamel & Novelty Co.; E. H. Weil, president of the Vitreous Steel Products Co., Cleveland; F. G. Calton, vice president of the Tennessee Enamel Mfg. Co., Nashville; R. A. Weaver, president of the Ferro Enamel Corp., Cleveland; E. L. Lasier, vice president of the Titanium Alloy Mfg. Co., Niagara Falls, N. Y.; and H. H. Wineburgh of Textolite, Inc., Dallas.

Members elected to the institute's board of trustees were:

Jobbing shop division, R. F. White, vice president of Mullins Mfg. Corp., Salem, Ohio; W. A. Donald, manager of Vitreous Enameling & Stamping Co., New York City; William Mahoney, assistant general manager of Chattanooga Stamping & Enameling Co.; Mr. Smith, and Mr. Ingram.

Sign division, F. S. Davidson, president of Davidson Enamel Products, Inc., Lima, Ohio; H. L. Beach, vice president of Beach Enameling Co., Coshocton, Ohio; J. T. Penton, president of California Metal Enameling Co., Los Angeles; Mr. Blome, and Mr. Hodek.

Table top division, M. N. Hurd, president of Ingram-Richardson Mfg. Co. of Indiana, Frankfort, Ind.; W. H. Brett, secretary of Enamel Products Co. of Cleveland; Mr. Weil; Mr. Staud; and Mr. Calton.

Frit division, W. R. Greer, vice president of Porcelain Enamel & Mfg. Co., Baltimore; G. K. Fry, vice president of Enamels Guild, Inc., Pittsburgh; Mr. Hogenson; Mr. Weaver; and Mr. Lasier.

Cooperative membership division, Bennett Chapple, vice president of American Rolling Mill Co., Middlebury, Ohio; R. D. Landrum, district sales manager of Harshaw Chemical Co. in Chicago; F. A. Moeschl, vice president of Newport Rolling Mill Co., Newport, Ky.; L. D. Mercer, assistant manager of sheet sales for Republic Steel Corp., Youngstown, Ohio; and R. L. McGean, vice president of McGean Chemical Co., Cleveland.

Remainder of the morning was devoted to a report of the institute's secretary, George MacKnight of Chicago, and the report of the treasurer, Mr. Hogenson.

The afternoon's session included a talk by Mr. Chapple on "Architectural Uses of Porcelain Enamel"; a talk on "Development of Technical and Market Research Through an Educational Bureau of the Porcelain Enamel Institute" by Mr. Lasier; Mr. Hogenson's talk of "What the Public

Does Not Know About Porcelain Enamel"; and Mr. Weaver's discussion of "Cooperative Advertising as the Basis for Industry Growth."

Mr. Chapple's address was a prophecy that porcelain enamel now awaits only the "architectural acceptance" to become one of the major building materials. Experimental use of enameled sheets in homes costing \$25,000 or \$30,000 has produced highly satisfactory effects, and when constructional problems (such as methods of attaching enameled plates to studdings of a house) are solved, he expects to see extensive use of the material in building.

Mr. Lasier recounted some of the purposes of the Porcelain Enamel Institute, and cited as some of its accomplishments the preparation and distribution of 25,000 copies of the booklet "What You Should Know About Porcelain Enamel," the preparation of press releases, the operation of the Porcelain Enamel Parade at A Century of Progress last year and the receipt of some 6,000 inquiries on porcelain products during the Fair, and sponsoring of several conferences between architects and porcelain enamel representatives.

1933 Industry Sales \$13,000,000

The industry's sales volume totaled about \$11,000,000 in 1932, and about \$13,000,000 last year, according to Mr. Lasier, and he made a number of proposals to increase this figure by certain cooperative industry promotional projects.

Divisions of this educational bureau, as outlined by Mr. Lasier, would include (1) a market research section which would investigate new uses for porcelain enamel in American industry; (2) a technical research section which would establish standards for the industry, undertake some of the scientific problems facing the industry, and develop new fields for porcelain from the scientific approach; (3) an advertising and sales promotion section which would issue advertising literature and direct trade paper advertising; and (4) the industry contact section which would be responsible for educational work in porcelain-consuming industries—as, for instance, refrigeration dealer contacts.

Next speaker, Mr. Hogenson, gave as facts "which the public does not know about porcelain enamel" its advantages of durability, cleanliness, attractive whiteness, etc., and pointed out that aggressive advertising of competitive finishes has made the public lose sight of porcelain's features.

He did not discount competitive finishes, but declared that porcelain has a unique combination of qualities which should preserve its place among the popular refrigerator finishes.

He proposed three educational tasks: first, to acquaint manufacturers and distribution channels with proved facts about porcelain; second, to acquaint the buying public with these facts; and third, to tell the public how to distinguish porcelain from other finishes.

The afternoon meeting of the jobbing shop division of the institute was called to order by E. S. Smith of the Toledo Porcelain Products Co., and was addressed by R. G. Calton on "What the Jobbing Shop Can Do to Increase Its Business," and by T. M. Harrison of Stevenson, Jordan & Harrison on "The Basis of Profitable Jobbing Shop Operation."

Jobbing Shop Discussion

A jobbing shop, it should be explained, is a plant which applies porcelain to parts which are built up into a completely manufactured product by some other company.

Mr. Calton explained the present condition of excessive production facilities of jobbing shops is not only due to the depression, but also to the fact that many range and refrigerator manufacturers have installed their own porcelain plants. His talk included a number of suggestions on how to increase the business of these jobbing shops.

"We can directly increase our sales to present customers if we will investigate their present products carefully and suggest to them additional uses of porcelain enamel," he averred.

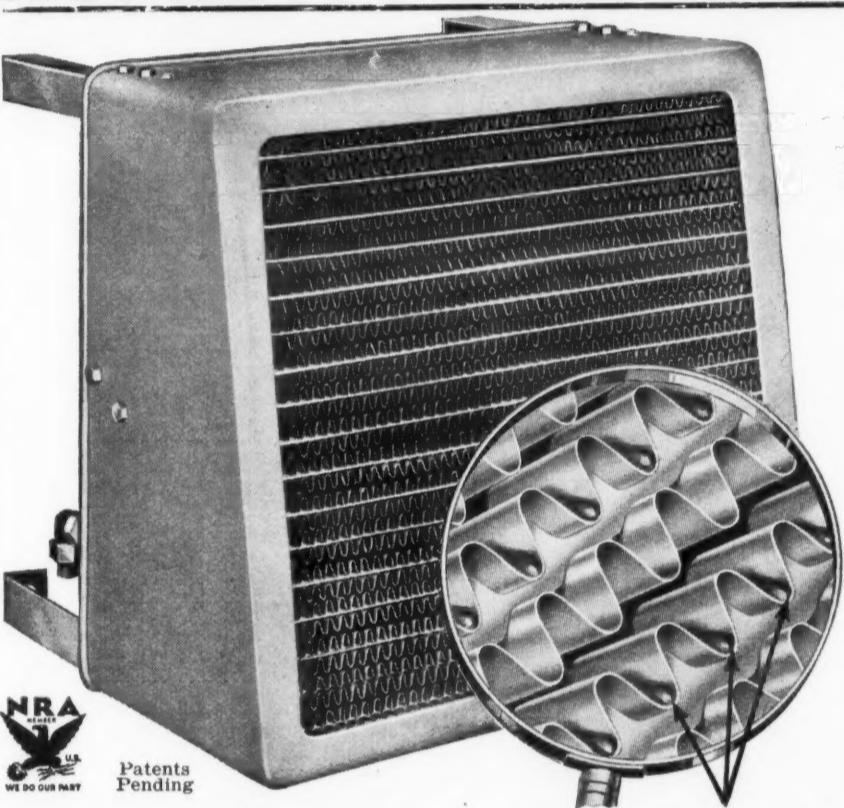
"We can also offer assistance of an indirect nature to our customers by offering engineering advice which would lead to a correction of poorly designed parts from an enameling standpoint. Also, we can offer assistance in designing parts for new models, simplifying them, reducing breakage, thus placing our customers in position to obtain larger volume of business," Mr. Calton stated.

To secure more distinctively styled products, he proposed brushing effects, as on flanges, corners of doors, side panels, etc., so arranged that the brushing becomes a part of the artistic treatment of the product.

In conclusion, he urged the other jobbing shops to keep a watchful eye on the development of porcelain enamel construction work, particularly in view of the fact that there is little likelihood that the construction industry will attempt to build its own enameling plants.

The afternoon meeting of the convention was devoted to closed committee meetings on code affairs, a meeting of the sign division, and routine business of the institute.

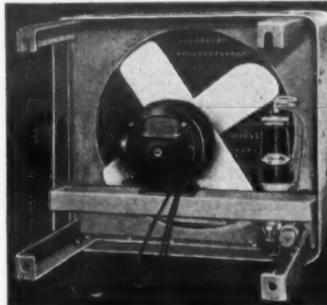
Now FEEDERS FORCEDRAFT UNIT COOLERS Establish New Principle of HUMIDITY CONTROL



Patents Pending

Hundreds of Water Troughs in FEEDERS Inclined Element MAINTAIN THE CORRECT RELATIVE HUMIDITY

"Perfectly Simple and Simply Perfect" describes the Humidity control results made possible by the Feeders Exclusive Inclined Cooling Element. The hundreds of Integral Water Troughs throughout the Feeders Cooling Element act as Moisture Accumulators. As the air stream flows through the Cooling Element it automatically reabsorbs the moisture. The continual cycle of condensation and reabsorption maintains the correct humidity. This, combined with Forced-draft Circulation establishes a new standard of Air Conditioned commercial refrigeration.



Rear View showing fully enclosed motor, Feeders Model 33 Thermostatic Expansion Valve, and hanger brackets. Made in a complete line of sizes from 1/10 ton to 1 1/2 ton.—write for Bulletin 66-A.

100% BRASS and COPPER Construction DEFIES RUST

You can forget that there is any such thing as rust when you install Feeders Unit Coolers. Cooling Element, Cabinet, Hanger Brackets, even the bolts and nuts are made entirely of Brass or Copper. You get the BEST when you get FEEDERS.

A COMPLETE LOW SIDE EQUIPPED WITH FEEDERS MODEL 33 THERMOSTATIC EXPANSION VALVE

Write for Bulletin 67-A giving complete installation, operating and adjustment data.



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GOVERNMENT ISSUES PROPERTY SURVEY FOR 12 CITIES

WASHINGTON, D. C. — Returns from the Real Property Inventory, Federal nation-wide survey of housing conditions, released by Willard L. Thorp, director, Bureau of Foreign and Domestic Commerce, have made available identical data for 12 representative cities in various sections of the United States.

Organized as a research unit of the Bureau under the direction of Daniel E. Casey, and financed by Civil Works Administration funds, the Real Property Inventory has studied residential conditions in more than 60 American cities.

With the exception of hotels, rooming houses, summer cottages, and clubs, the residential quarters of every building in each city were investigated.

Casper, Wyo.

In Casper, Wyo., a city with a reported population of 16,619 in the 1930 census, the total number of families investigated was 5,041, of which 4,826 were white.

Electricity was used for lighting in 5,108 dwelling units, and 813 owned mechanical refrigerators.

Columbia, S. C.

According to the 1930 census, the population of Columbia, S. C., was about 51,000 persons. Number of families was shown by the inventory to be 12,347, of which number 7,121 were white.

Electricity was used for lighting in 7,882 dwelling units, and 1,895 had mechanical refrigerators.

Butte, Mont.

The 1930 census gave Butte, Mont., a population of 35,932 made up of 9,503 families, 8,938 being white. Electricity was used in 10,540 residences, and 991 mechanical refrigerators were in use.

Nashua, N. H.

Nashua was shown to have some 31,000 inhabitants in the 1930 census, made up according to the inventory of 8,177 families. White families totaled 7,531.

Electricity was used in 7,595 dwelling units, and 1,156 mechanical refrigerators were found.

Burlington, Vt.

The approximate population of Burlington, Vt., was 25,000 according to the 1930 census. White families surveyed numbered 6,243, and total families were reported at 3,648.

Lighting by electricity was reported for 6,465 dwelling units, and 1,068 owned mechanical refrigerators.

Paducah, Ky.

The reported population of Paducah, Ky., in the 1930 census, was 33,541. The inventory showed 9,660 families, 7,136 being reported as white.

Electric lighting was found in 6,189 dwelling units, and those using mechanical refrigeration numbered 581.

Boise, Ida.

Boise, Ida., with a 1930 census population of 21,544, had 6,523 families according to the inventory report. White families numbered 6,114.

Electricity was found in 6,262 residences, and mechanical refrigeration was used in 1,307.

Greensboro, N. C.

The city of Greensboro, N. C., had a population of 53,569 in the 1930 census. The inventory showed a total of 12,893 families of which 8,300 were white.

Electric lighting was reported in 9,977 dwellings, and 2,214 owned mechanical refrigerators.

Little Rock, Ark.

The 1930 census gave Little Rock, Ark., 81,697 inhabitants. According to the inventory, white families made up 18,410 of the total of 28,264 families.

Electricity was used in 20,089 residences. Mechanical refrigeration was found in 4,667 of the dwellings.

Hagerstown, Md.

As reported in the 1930 census, Hagerstown, Md., was city of 30,861 inhabitants. The inventory showed 8,412 families, white families, only, being 7,310 in number.

Dwellings using electricity for lighting numbered 7,706, and 1,509 used mechanical refrigeration.

Reno, Nev.

Residents of Reno, Nev., were 18,529 according to the 1930 census. Families numbered 5,561 with white family groups making up 5,329 of this total.

Residences using electricity for lighting were listed as 5,953, while 1,360 used mechanical refrigeration.

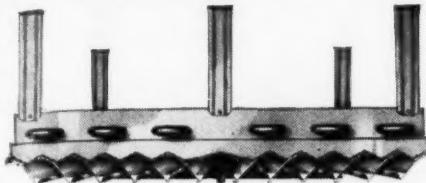
Wichita Falls, Tex.

The population of Wichita Falls, Tex., was shown to be 43,690 persons in the 1930 census. According to the inventory, 10,658 families were located in the city, 8,632 of these being white.

Electric lighting was used for 8,968 residences, and 1,418 had mechanical refrigerators.

	Casper, Wyo.	Columbia, S. C.	Butte, Mont.	Nashua, N. H.	Burlington, Vt.	Paducah, Ky.	Boise, Idaho	Greensboro, N. C.	Little Rock, Ark.	Hagerstown, Md.	Reno, Nev.	Wichita Falls, Tex.
TYPE OF DWELLING No. of Structures												
Single family												
1 family	3,660	8,372	5,925	2,711	2,683	6,733	4,664	10,361	23,543	2,836	4,163	8,842
2 family	255	1,120	725	1,296	977	657	209	418	907	1,712	245	518
3 family	8	20	53	67	73	9	9	28	30	52	8	1
4 family	50	78	229	171	82	51	59	70	151	56	46	46
Row house	51	30	52	46	16	8	13	9	9	106	35	3
Apartment	60	32	156	105	100	29	260	293	136	88	86	36
Other dwelling	140	357	218	339	321	278	121	84	385	185	59	221
TYPE OF DWELLING No. of Dwelling Units												
Single family	3,660	8,372	5,925	2,711	2,683	6,733	4,664	10,361	23,543	2,836	4,163	8,842
2 family	251	1,210	712	2,412	1,954	314	418	836	1,814	3,424	490	1,036
3 family	24	60	59	201	219	27	84	90	156	24	3	3
4 family	200	312	916	688	328	204	236	280	604	224	184	184
Row house	302	163	228	207	56	53	89	48	38	464	192	13
Apartment	706	191	1,577	821	680	260	770	293	1,068	592	920	316
Other dwelling	217	850	472	929	698	458	273	159	635	453	181	328
AGE OF STRUCTURES												
0-4 years	48	646	66	375	275	412	274	429	1,493	205	848	220
5-9 years	531	1,234	116	460	368	1,111	284	2,303	5,183	457	860	3,270
10-14 years	1,772	1,322	309	299	205	574	450	1,816	4,116	411	507	2,631
15-19 years	1,450	972	1,264	196	167	467	594	1,599	3,167	528	419	1,917
20-24 years	241	1,240	836	180	183	612	1,043	1,449	2,860	634	433	861
25-29 years	106	726	822	121	200	760	807	1,110	1,873	453	495	366
30-34 years	56	2,091	1,490	286	476	1,426	1,018	3,484	689	614	319	319
35-39 years	41	321	902	362	337	537	358	307	859	305	76	36
40 years and over	19	810	1,239	327	675	1,173	278	293	1,321	580	234	36
50-74 years	419	255	945	922	492	33	98	692	451	90	1	0
75 years and over	106	15	530	422	69	1	21	43	241	6	0	0
CONDITION OF STRUCTURE												
Good	1,220	3,261	2,215	2,011	1,821	1,572	2,009	3,050	8,461	2,505	2,297	3,141
Needs minor repairs	1,939	4,595	3,023	2,000	2,004	3,088	2,206	5,778	10,405	2,015	1,701	4,324
Needs structural repairs	844	1,895	1,745	529	360	2,441	787	1,882	5,128	450	546	1,937
Unfit for use	262	170	358	90	49	618	148	280	1,116	53	80	249
MATERIALS OF CONSTRUCTION												
Wood	3,492	8,269	4,921	4,397	3,612	6,532	4,277	9,699	21,605	2,083	3,176	8,741
Brick	320	1,412	2,287	132	541	916	343	1,049	2,883	2,552	959	736
Stone	2	16	10	3	23	14	79	25	117	63	37	3
Concrete	52	29	72	21	19	28	26	5	37	76	95	1
Stucco	339	144	46	73	45	131	408	207	440	223	352	162
Other	50	39	10	13	3	105	18	4	35	31	16	15
GARAGE												

PEERLESS FLASH COOLER



The NEW Eye Appealing
Method of Cooling Walk-
In Refrigerators

STYLE & RESULTS

Fin Coils and Drip Pans Engineered in an Integral
Unit—Saves Installation Cost and Operating Cost

PEERLESS ICE MACHINE CO. 515 W. 35th St. Chicago

DAYTON V-BELTS



• There is a Dayton V-Belt for all
makes and types of refrigerators.
A stock is available near you.
Send for price list and name of
your nearest distributor.

THE DAYTON RUBBER MFG. CO.
DAYTON, OHIO

The world's largest manufacturer of V-Belts

COPELAND REPAIRS — REPLACEMENTS

REPAIRS

	REPLACEMENT PARTS
B & B Household Controls.....	\$2.50
Penn Household Controls.....	2.50
Penn Commercial Controls.....	4.50
Amer. Rad. Household Exp. Valve.....	2.50
Amer. Rad. Multiple Exp. Valve.....	3.50
Amer. Rad. Multiple Exp. Valve.....	3.50
Apex Water Regulating Valve.....	3.50
Iso Butane (Freezol) Per lb.....	1.25
Penn Water Regulating Valve.....	3.50
Methyl Chloride, Per lb.....	7.50

We also carry a complete stock of Gilmer Belts, Penn Water Regulating Valves, Glass Defrosting Trays, Lead and Fibre Gaskets, Etc. WRITE FOR PRICES.

Forty Eight Hour service on repairs, immediate shipment on replacements. All Repairs and Parts guaranteed to be free from defects in Workmanship, and Material for ONE YEAR.

REFRIGERATION SERVICE LABORATORIES, INC.
418-20 Rush Street Chicago, Illinois.

THE TRADEMARK OF FOUR PACE SETTERS IN COIL EFFICIENCY

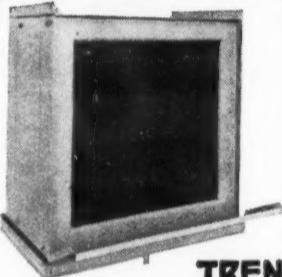
RACKS
KOILS
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KOOL
C

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Air-Conditioning Units

SEND FOR NEW CATALOG DESCRIBING
THESE SENSATIONAL DEVELOPMENTS

REFRIGERATION APPLIANCES, INC.
H. J. KRACKOWIZER, Pres.
1342 WEST LAKE ST., CHICAGO



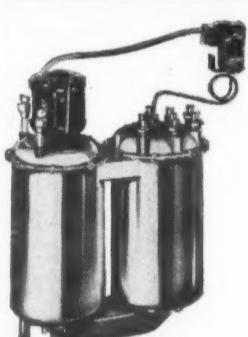
Kramer Turbofin Unit Coolers

Coil construction all copper hot tin dipped. Shell construction all brass finished in dark green Dulux. Made in 5 sizes, 20 to 80 lb. hourly I.M.E. capacities.

See our larger ad on UNIT COOLERS
elsewhere in this issue

TRENTON AUTO RADIATOR WORKS

Main Offices and Factory, TRENTON, NEW JERSEY
NEW YORK: 210-212 West 65th Street PITTSBURGH: 5114 Liberty Avenue



Radial Dual Control Beer Cooler

Installs in any fixture.
Uses any refrigerant.
Positive automatic temperature control gives accurate wide temperature range.

Available with 1 to 4 draft arms with capacity for all demands.

Write today for details on the "Radial" franchise for your territory.

Commercial Coil & Refrigeration Co.
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The Dayton CARRIER Truck

Deliver Your Refrigerators
on Rubber

Type X has 53 inch Handles and 8
inch Rubber Wheels. Type Y has 70
inch Handles, 5 inch Rubber Wheels
and skids.

Type X with one strap \$16.00
Type Y with one strap \$17.50
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Dehydrated Tubing
Brass Fittings, Pins
Floats, Seals, Gaskets

Temperature Controls
Expansion Valves
Condensing Units

THE HARRY ALTER CO.
1728 S. Michigan Ave. CHICAGO



Listing Over
2,000
Items

Service Manual
No. 1615 (Service Company, Pennsylvania)—"Will you kindly send me a copy of ELECTRIC REFRIGERATION NEWS

QUESTIONS

Sanisco

No. 1606 (Manufacturer, Indiana)—"Please wire collect the name and address of the manufacturer of Sanisco ice cream sandwich machines."

Answer: Sanisco Co., Milwaukee, Wis.

Gas Operated Refrigerators

No. 1607 (Czechoslovakia)—"Please let me know if there is any other firm manufacturing refrigerators similar to the Electrolux."

Answer: No, Electrolux is the only gas-operated refrigerator made in the United States.

Coldspot

No. 1608 (Department store, Virginia)—"Please advise us who manufactures the Coldspot refrigerator being sold by Sears, Roebuck & Co. We would appreciate specifications of household models, if they are available."

Answer: The Coldspot uses a refrigeration system made by the Sunbeam Mfg. Co. of Evansville, Ind. Cabinets are manufactured by Seeger Refrigerator Co. of St. Paul, Minn. Detailed specifications have been requested for the May 30 issue of the News, in which specifications of household electric refrigerators will be featured.

Pulleys and Fans

No. 1609 (Manufacturer, Wisconsin)—"Will you please refer us to all manufacturers of motor pulley and fan assemblies for household electric refrigeration units in $\frac{1}{2}$ - and $\frac{1}{4}$ -hp. sizes?"

Answer: A large number of manufacturers of compressor parts are listed in the new 1934 REFRIGERATION DIRECTORY AND MARKET DATA Book. For fans, see page 183; and for pulleys, see page 185.

Replacement Parts

No. 1610 (Service company, Texas)—"Kindly furnish with the names and addresses of firms handling replacement parts for popular makes of electric refrigerators such as Kelvinator, Frigidaire, and Copeland."

No. 1611 (Service company, Minnesota)—"Please send me names of firms selling replacement parts such as gaskets, etc. which are used in every-day repair work."

Answer—See advertisements of replacement parts suppliers on this page of the News, or refer to the 1934 REFRIGERATION DIRECTORY.

Drawers for Refrigerators

No. 1612 (Utility company, Alabama)—"We are advised by Electrolux Refrigerator Sales, Inc., that possibly you can put us in touch with one or more companies manufacturing food file cabinets or drawers which are suspended from the shelves in automatic refrigerators."

"These food file compartments are generally constructed of aluminum or of a similar material, and we would like to purchase several sets if you can give us the manufacturers' names."

Answer: Try Federal Enameling & Stamping Co., Box 225, Pittsburgh, Pa.; Peerless Wire Goods Co., Inc., Lafayette, Ind.; and Union Steel Products Co., Albion, Mich.

Rice Refrigerators

No. 1613 (Service man, Ohio)—"Where can I get service information and parts for the Rice electric refrigerator? What kind of gas did it use?"

Answer: The Rice machine used methyl chloride. For service information and parts communicate with Rex Cooling Industries, Inc., 35 York St., Brooklyn, N. Y., which purchased the stock of parts when the Rice company went out of business.

Gas Refrigerator Sales

No. 1614 (Manufacturer, Michigan)—"I am wondering if, in the figures you have gathered on the various phases of the refrigeration industry, you have compiled anything on gas refrigerators and their competitive effect on the electric type."

"Should you have anything available on the number of machines sold and their percentage of sale to the electric refrigerator, and any territory peculiarities, would you be kind enough to direct them to my attention?"

Answer: The manufacture of gas-operated household refrigerators is virtually confined to one company (Electrolux) which does not publicly release sales figures. For an interesting discussion of the recent history of gas refrigeration, see the Review Section of the 1934 REFRIGERATION DIRECTORY.

Service Manual

No. 1615 (Service Company, Pennsylvania)—"Will you kindly send me a copy of ELECTRIC REFRIGERATION NEWS

and a subscription blank. Do you publish any kind of a service manual covering various makes of refrigerators?"

Answer: Specifications of all makes are published in the 1934 REFRIGERATION DIRECTORY AND MARKET DATA Book, (price \$3.00). We have not published a service manual.

Rated Dealer List

No. 1616 (Manufacturer, Wisconsin)—"We are wondering if you could advise us as to whether or not there is a list of refrigeration dealers compiled under definite Dun & Bradstreet Mercantile rating, similar to druggists lists and others of that nature. For example those rated \$5,000 and over; \$10,000 and over, etc. We are on the lookout for such a list and shall appreciate any help you can give us."

Answer: There is no published list of refrigeration dealers classified according to credit rating.

Commercial Refrigerators

No. 1617 (Indiana)—"Will you please give me the name and post office address of the company that builds the Koch refrigerators, coolers, and display cases, and the manufacturers of some other lines of coolers and display cases?"

Answer: Koch Butchers' Supply Co., 14th, Gentry, and Howell Sts., North Kansas City, Mo. Commercial cabinet manufacturers advertising in the 1934 REFRIGERATION DIRECTORY are: Brunswick-Balke-Collender Co., 623 S. Washington Ave., Chicago; Ottenheimer Bros., Inc., Fallsway and Hiller Sts., Baltimore, Md.; Percival Co., C. L. Des Moines, Iowa; and Seeger Refrigerator Co., Arcade, Wells, and Whitehall Sts., St. Paul, Minn.

Iso Butane

No. 1618 (Distributor, Ohio)—"Will you please send us a list of manufacturers of Freezol or Iso Butane."

Answer: Carbide & Carbons Chemical Corp., 30 E. 42nd St., New York City, and Matheson Co., East Rutherford, N. J.

Refrigerator Hardware

No. 1619 (Exporter, New York)—"We are interested in securing quotations on refrigeration hardware, i.e., big hinges, ball bearings and all sorts of locking devices, die cast and chromium plated, and wonder if you could give us the names of some manufacturers whom we could approach in this connection. We wrote the Grand Rapids Brass Co., but these people are already represented in the territory in which we are interested."

Answer: See advertisement of Kason Hardware Corp., 61 Navy St., Brooklyn, N. Y.

Refrigeration Schools

No. 1620 (Indiana)—"I am interested in the electric refrigeration field, and would like to obtain some information in regard to training for this subject. Could you advise me as to any schools which offer a course of this kind?"

"Also could you give me any information about the O. F. Schoeck School, located at Alton, Ill.? Do you know of any text books recently out on this subject?"

Answer: See advertisement of Utilities Engineering Institute, 404 N. Wells St., Chicago, in this issue. We have no record of the O. F. Schoeck School to which you refer. For a book, see review of "Household Refrigeration" by H. B. Hull in this issue.

Assembly Parts

No. 1621 (Manufacturer, Nebraska)—"Please send us a couple of sample copies of ELECTRIC REFRIGERATION NEWS which have the most advertising of parts. We are interested in buying parts to make an electric refrigerator."

"Could you give us the names of some companies making compressors, condensers, and cooling units for cabinets?"

Answer: The 1934 REFRIGERATION DIRECTORY lists manufacturers of compressors, condensers, cooling units, and other component parts used in assembling electric refrigerators.

ACE HARD RUBBER

Roller Bearing REFRIGERATOR DOORS

of the center rail groove type are supplied with roller bearings at a slight extra cost.

• • •

A wider range of standard sizes and styles of Ace hard rubber doors, door frames are available. Also, slide rails, jams, trim, glazing strips, etc. Catalogue and prices available on request.

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Akron, Ohio — 111 West Washington St., Chicago, Ill.

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McCORD RADIATOR &

MFG. CO.

DETROIT, MICH.

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PAYMENT in advance is required for advertising in this column.

RATES: Fifty words or less, one insertion \$2.00, additional words four cents each. Three insertions \$5.00, additional words ten cents each.

REPLIES to advertisements with box numbers should be addressed to the box number in care of Electric Refrigeration News, 550 Maccabees Bldg., Detroit, Mich.

USED EQUIPMENT FOR SALE

IF IN NEED of slightly used Refrigerator Equipment write us about any one of the following items: Weston or Jewell Refrigerator Test Meters, Premier Test Panels, Tyco Recording Pressure & Vacuum Gauge, Bristol Recording Thermometer 5° Range 20° to 120° F., Sagamo Special 5 Amp Watt Hour Meters, Cenco Megavac Vacuum Pump with Motor, United Test Gauges 0 to 150 lbs. and